

SET-A

## QUANTUM POTENTIAL TEST

[Quality Nurturer & Mind Utilizer Test for Potential Enhancement]

(IPEC Scholarship-Cum-Admission Test)

For

CLASS-X

(For X to XI Moving Students)

Time : 3 Hrs.]

[14-Oct-2018]

[Maximum Marks : 285

[PAPER-2]

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

### INSTRUCTIONS

1. The booklet is your Question Paper. Do not break the seal of this booklet before being instructed to do so by the invigilator.
2. Blank spaces and blank pages are provided in the question paper for your rough work. No additional sheets will be provided for rough work.
3. Blank papers, clipboards, log tables, slide rules, calculators, cameras, cellular phones, pagers and electronic gadgets are **NOT** allowed inside the examination hall.
4. The answer sheet, a machine-readable Optical Response Sheet (**ORS**), is provided separately.
5. On breaking the seal of the booklet check that it contains **1** pages and all the **75** questions.
6. A candidate has to write his / her answers in the ORS sheet by darkening the appropriate bubble with the help of **Black ball point pen** as the correct answer of the question attempted.
7. **Question Paper Format :**

This question paper consists of **Three Parts:**

**Part-I:** (Physics) - 25 Questions.

**Part-II:** (Chemistry) - 25 Questions.

**Part-III:** (Mathematics) - 25 Questions.

8. **Marking Scheme :**

Please see the marking scheme as mentioned in all sections.

FOR ANSWER KEY VISIT OUR WEBSITE- [www.ipeeciit.com](http://www.ipeeciit.com)

## PART -I [Physics]

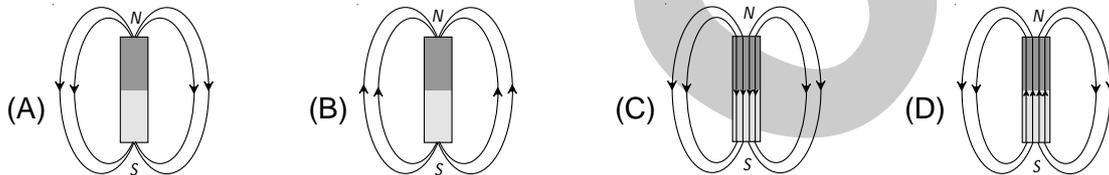
## [SECTION - I]

## [SINGLE CORRECT TYPE]

This section contains 5 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +3 marks for correct answer and -1 for wrong answer]

1. The magnetic field lines due to a bar magnet are correctly shown in figure.



2. A current flows in a conductor from east to west. The direction of the magnetic field at a point above the conductor is  
 (A) towards north (B) towards south (C) towards east (D) towards west
3. An electrical generator converts  
 (A) electrical energy into chemical energy (B) mechanical energy into electrical energy  
 (C) electrical energy into mechanical energy (D) mechanical energy into heat energy
4. Electrical energy can be produced from  
 (A) mechanical energy (B) chemical energy  
 (C) radiant energy (D) all of these
5. In a nuclear power plant, uranium atoms  
 (A) combine and give off heat energy (B) split and give off heat energy  
 (C) burn and give off heat energy (D) split and give off electrons

## [SECTION - II]

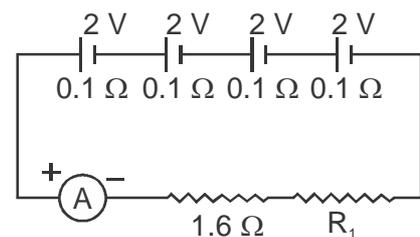
## [COMPREHENSION TYPE]

This section contains 6 comprehension (15 Multiple Choice Questions). Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +4 marks for correct answer and -1 for wrong answer]

## Comprehension#1

Four cells each of emf 2 V and internal resistance  $0.1\Omega$  are connected in series. The combination in series is joined to an ammeter of negligible resistance, a  $1.6\Omega$  resistor and unknown resistor  $R_1$  as shown in figure. The current in the circuit is 2A.



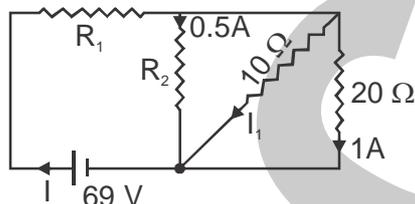
6. The value of  $R_1$  is  
 (A)  $1\Omega$  (B)  $2\Omega$  (C)  $3\Omega$  (D)  $4\Omega$

(Space for rough work)

7. The potential difference across  $R_1$  is  
 (A) 2 V (B) 4 V (C) 6 V (D) 8 V
8. The total resistance of the circuit is  
 (A)  $1 \Omega$  (B)  $2 \Omega$  (C)  $3 \Omega$  (D)  $4 \Omega$

**Comprehension#2**

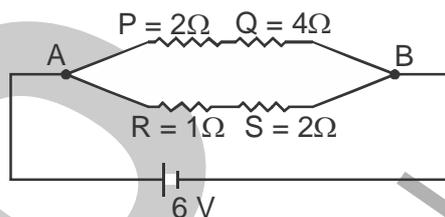
Solve the question with the help of given circuit diagram.



9. Find the current flowing through the battery i.e, I  
 (A) 3 A (B) 3.5 A (C) 5 A (D) 1.5 A
10. Find the value of  $R_1$  for given condition  
 (A) 14 (B) 40 (C) 42 (D) Data Insufficient
11. Find the current through  $10\Omega$  resistance (i.e.  $I_1$ )  
 (A) 1 A (B) 2 A (C) 3 A (D) 4 A

**Comprehension#3**

Heat generated in a resistance is H and it is given by  $H = i^2 R t$ . Where  $i$  is the current flows through the resistor R in time t. Now solve the question with the help of given diagram

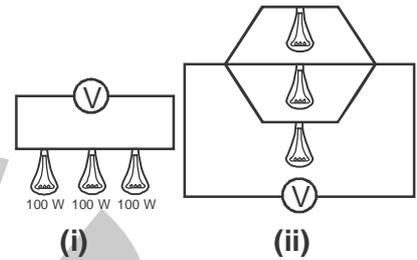


12. Find the heat generated in resistance P, ( $P = 2\Omega$ ) in 2 sec  
 (A) 2 J (B) 4 J (C) 8 J (D) 6 J
13. Find the total power supplied by the battery  
 (A) 10 J (B) 9 J (C) 18 J (D) 20 J
14. Which of the four resistance generate the greatest amount of heat when a current flows from A to B  
 (A) P (B) Q (C) R (D) S

(Space for rough work)

**Comprehension#4**

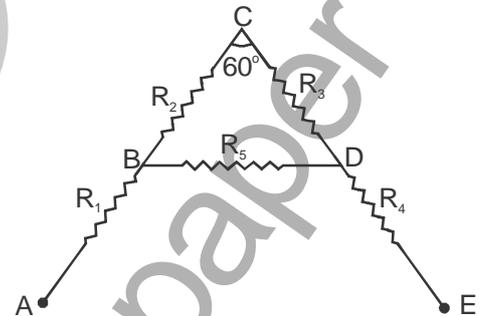
Three incandescent bulbs of 50 W each are connected in series in an electric circuit. In another circuit another set of three bulbs of the same wattage are connected in parallel to the same source.



15. Which of the following statement is true for the bulbs in two circuits?  
 (A) Bulbs in both circuits glow with the same brightness.  
 (B) Bulbs in both circuits glow with different brightness.  
 (C) Bulbs in series combination will glow more brightly.  
 (D) Bulbs in parallel combination will glow more brightly.
16. If one of the blub in both the circuit get fused then  
 (A) the rest of the bulbs in circuits (i) and circuit (ii) will stop working  
 (B) the rest of the bulbs in circuits (i) and (ii) will continue to glow.  
 (C) the rest of the blubs in circuit (i) will continue to glow and in circuit (ii) will stop working.  
 (D) the rest of the blubs in circuit (i) will stop working and in circuit (ii) will continue to glow.

**Comprehension#5**

A letter A consists of a uniform wire of resistance 1 ohm per cm. The sides of the letter are each 20 cm long and the cross-piece in the middle is 10 cm long while the apex angle is 60°. The arrangement is as shown in the figure.



17. The effective resistance between B and D is  
 (A)  $\frac{20}{3} \Omega$                       (B)  $\frac{3}{20} \Omega$                       (C)  $20 \Omega$                       (D)  $3 \Omega$
18. The effective resistance between the ends A and E is  
 (A)  $\frac{3}{80} \Omega$                       (B)  $3 \Omega$                       (C)  $\frac{80}{3} \Omega$                       (D)  $80 \Omega$

(Space for rough work)

**Comprehension#6**

The strength of the magnetic field produced by a current-carrying conductor depends on (i) Current flowing through the conductor . (ii) distance from the conductor . (iii) Angle between conductor and distance between them .

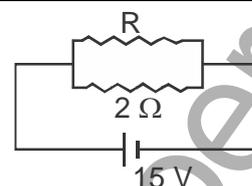
19. A long horizontal power line is carrying a current of 100 A in the east-west direction. The direction of magnetic field at a point 1.0 m below it is  
 (A) south to north (B) north to south (C) east to west (D) west to east
20. If a current carrying straight conductor is placed in east-west direction, then the direction of the force experienced by the conductor due to earth's magnetic field is  
 (A) downward (B) upward (C) east west (D) west east

**[SECTION - III]****[INTEGER TYPE]**

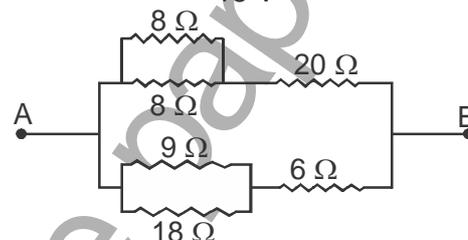
This section contains 5 Subjective Questions. The answer to each of the questions is a single digit integer, ranging from 0 to 9 (both inclusive)

[Marking Scheme: +3 marks for correct answer and -1 for wrong answer]

21. If in the circuit, power dissipation is 150 W, then R is (in  $\Omega$ )

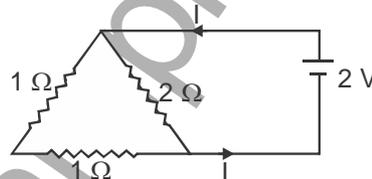


22. The equivalent resistance between the points A and B as shown in the figure is (in  $\Omega$ )



23. A current of 2 A passing through conductor produces 80 J of heat in 10 seconds. The resistance of the conductor is (in  $\Omega$ )

24. What is the current (I) in the circuit (in A)?



25. A current of 0.1 A flows through a conductor of resistance  $10\Omega$ . The potential difference across the ends of the conductor is (in volt)

(Space for rough work)

## PART -II [Chemistry]

## [SECTION - I]

## [SINGLE CORRECT TYPE]

This section contains 5 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +3 marks for correct answer and -1 for wrong answer]

26. Which of the following properties is not a characteristic of metals?  
(A) Metallic lusture (B) High density  
(C) Hardness (D) Low melting and boiling point
27.  $Zn + (X) \longrightarrow ZnSO_4 + H_2$ . Here X is  
(A)  $CuSO_4$  (B) HCl (C)  $H_2SO_4$  (D)  $HNO_3$
28. Which of the following is a strong acid?  
(A) Lactic acid (B) Ascorbic acid (C) Sulphuric acid (D) Formic acid
29. Which of the following reaction is a redox reaction as well as displacement reaction?  
(A)  $2HgCl_2 + SnCl_2 \rightarrow Hg_2Cl_2 + SnCl_4$  (B)  $ZnO + C \rightarrow Zn + CO$   
(C)  $2Al + 6HCl \rightarrow 2AlCl_3 + 3H_2$  (D)  $H_2S + Cl_2 \rightarrow 2HCl + S$
30. Rusting of iron is a chemical reaction. The reaction can be termed as  
(A) Displacement (B) Combination  
(C) Double decomposition (D) substitution

## [SECTION - II]

## [COMPREHENSION TYPE]

This section contains 6 comprehension (15 Multiple Choice Questions). Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +4 marks for correct answer and -1 for wrong answer]

**Comprehension#1**

A solid compound X on heating gives  $CO_2$  gas and a solid residue. The residue when mixed with water forms Y. On passing excess of  $CO_2$  through Y in water a clear solution Z is obtained.

31. Identify the compound X.  
(A)  $CaCO_3$  (B)  $Na_2CO_3$  (C) CaO (D)  $Ca(OH)_2$
32. Identify the compound Y.  
(A)  $CaCl_2$  (B) CaO (C)  $Ca(OH)_2$  (D)  $CO_2$
33. Identify the compound Z.  
(A)  $Ca(HCO_3)_2$  (B)  $Ca(OH)_2$  (C)  $CaCO_3$  (D) CaO

(Space for rough work)

**Comprehension#2**

Oxidation and reduction always occur simultaneously. These reactions which involve simultaneous oxidation and reduction are called redox reactions. Therefore every redox reaction is made up of two half reactions. One half reaction represents oxidation and other half reaction represents the reduction. Oxidation and reduction of an atom, molecule or ion can also be defined in terms of electrons. The substance that gains electrons, is reduced to a lower oxidation state and acts as an oxidising agent. Similarly, the substance which loses electrons is oxidised to higher oxidation state, and is called a reducing agent.

34. In which of the following reaction hydrogen peroxide is acting as reducing agent?  
(A)  $2\text{FeCl}_2 + 2\text{HCl} + \text{H}_2\text{O}_2 \rightarrow 2\text{FeCl}_3 + 2\text{H}_2\text{O}$  (B)  $\text{Cl}_2 + \text{H}_2\text{O}_2 \rightarrow 2\text{HCl} + \text{O}_2$   
(C)  $2\text{HI} + \text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{I}_2$  (D)  $\text{H}_2\text{SO}_3 + \text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{SO}_4 + \text{H}_2\text{O}$
35. The reaction  $\text{H}_2\text{S} + \text{H}_2\text{O}_2 \rightarrow \text{S} + 2\text{H}_2\text{O}$  indicates  
(A) oxidising action of  $\text{H}_2\text{O}_2$  (B) reducing nature of  $\text{H}_2\text{O}_2$   
(C) acidic nature of  $\text{H}_2\text{O}_2$  (D) alkaline nature of  $\text{H}_2\text{O}_2$
36. In an acidic medium,  $\text{Mn}^{7+}$  changes to  $\text{Mn}^{2+}$ , it is  
(A) oxidation by 3 electrons (B) reduction by 5 electrons  
(C) oxidation by 5 electrons (D) reduction by 3 electrons.

**Comprehension#3**

Corrosion may be defined as : The process of slow eating up of a metal by the gases and water vapours present in air due to formation of certain chemical compounds.

Corrosion is favoured by the following factors :

- Position of metal in the reactivity series: Active metals placed above hydrogen in the reactivity series are easily corroded as compared to the metals which are placed below hydrogen.
  - Air and moisture: The presence of water vapours and gases like  $\text{CO}_2$ ,  $\text{SO}_2$  etc. in air helps the process of corrosion.
  - Uneven metal surface : If the surface of metal is uneven, it will have certain depressions. Water drops will stick in these and take part in the chemical process leading to corrosion.
  - Presence of salts: Presence of salts or electrolytes in water promotes corrosion. For example, rusting of iron is faster in sea water (also called saline water) than in ordinary water or distilled water.
37. Chemically rust is  
(A) hydrated ferrous oxide (B) hydrated ferric oxide  
(C) only ferric oxide (D) None of these
38. Following processes are very common for checking rusting of iron  
(A) galvanisation (B) tinning (C) electroplating (D) All of these
39. Copper and silver get corroded in air by developing a coloured layer. The colour of the layers respectively is  
(A) green and black (B) brown and black (C) green and blue (D) black and green

(Space for rough work)

**Comprehension#4**

40. Reaction (I) represent

(A) Displacement reaction

(B) Combination reaction

(C) Decomposition reaction

(D) Double displacement reaction

41. Reaction (II) represent

(A) Displacement reaction

(B) Combination reaction

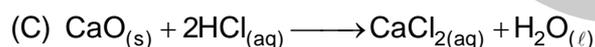
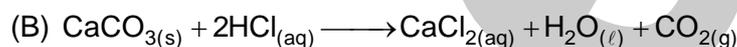
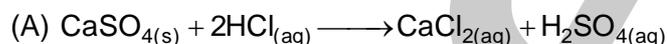
(C) Decomposition reaction

(D) Double displacement reaction

**Comprehension#5**

A metal compound A reacts with dilute hydrochloric acid to produce effervescence. The gas evolved extinguishes a burning candle.

42. The balanced chemical equation for the reaction if one of the compounds formed is calcium chloride is



(D) None of these

43. A is

(A)  $\text{CaCO}_3$

(B) CaO

(C)  $\text{CaSO}_4$

(D) None of these

**Comprehension#6**

Metals occurs in nature in the free as well as in the combined state. The less reactive metals are generally found in the free state. Most of the metals, however are found in the combined form as minerals. The minerals from which metals can be obtained on a commercial scale are called ores. In other words, the minerals from which metals can be extracted profitably are called ores. Thus, bauxite ( $\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$ ) and clay ( $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$ ) are minerals of aluminium. However, it is bauxite that is chiefly used to obtain aluminium commercially. So, bauxite, and not clay, is an ore of aluminium.

44. Metal which occurs in native state is

(A) Na

(B) Ca

(C) Mn

(D) Ag

45. Which of the following is a sulphide ore?

(A) Galena

(B) Cryolite

(C) Cuprite

(D) Bauxite

(Space for rough work)

**[SECTION - III]****[INTEGER TYPE]**

This section contains 5 Subjective Questions. The answer to each of the questions is a single digit integer, ranging from 0 to 9 (both inclusive)

[Marking Scheme: +3 marks for correct answer and –1 for wrong answer]

46. The composition of aqua-regia is x parts of conc. HCl and y parts of conc.  $\text{HNO}_3$ . The value of  $x + y$  is
47. The number of metals among the following elements are  
 ${}_{12}^{24}\text{X}$ ,  ${}_{9}^{19}\text{Y}$  and  ${}_{15}^{31}\text{Z}$
48. The basicity of phosphorous acid is
49. Among the given acids, strong acids are  
 $\text{H}_2\text{SO}_4$ ,  $\text{H}_2\text{CrO}_4$ , HCN, HCl, Phenol,  $\text{HNO}_3$
50. The value of x in balanced equation is  
 $\text{C}_6\text{H}_{12}\text{O}_6(\text{aq}) + 6\text{O}_2(\text{g}) \rightarrow x\text{CO}_2(\text{g}) + 6\text{H}_2\text{O}(\ell) + \text{energy}$

**PART -III [Mathematics]****[SECTION - I]****[SINGLE CORRECT TYPE]**

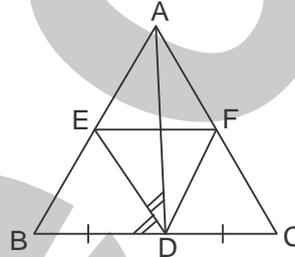
This section contains 5 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +3 marks for correct answer and –1 for wrong answer]

51. If  $\frac{p}{q}$  is a terminating decimal, what can you say about q ?
- (A) q must be in the form  $2^n$
- (B) q must be in the form  $5^m$
- (C) q must be in the form  $2^n \cdot 5^m$
- (D) q must be in the form  $2^n \cdot 5^m$ , where n and m are non negative integers.

(Space for rough work)

52. If  $p(x) = g(x) \cdot q(x) + r(x)$ , then degree of  $p(x)$  is equal to  
 (A) Product of degrees of  $g(x)$  and  $q(x)$  (B) Product of degrees of  $g(x)$  and  $r(x)$ .  
 (C) sum of degrees of  $g(x)$  and  $q(x)$  (D) sum of degrees of  $g(x)$  and  $r(x)$ .
53. Which of the following is a false statement ?  
 (A) Median can be determined graphically (B) Mean can be determined from the graph  
 (C) Mean cannot be determined by inspection (D) Mode can be determined graphically.
54. In the figure, D is the midpoint of BC and DE is the bisector of  $\angle ADB$  and  $EF \parallel BC$ . Then \_\_\_\_  
 (A)  $\angle EDF = 90^\circ$   
 (B)  $\angle EDF = 45^\circ$   
 (C)  $\angle EDF = 60^\circ$   
 (D)  $\angle EDF = 30^\circ$
55. If  $\cos \theta - \sin \theta = \sqrt{2} \sin \theta$ , then  $\cos \theta + \sin \theta =$   
 (A) 0 (B)  $\pm\sqrt{2} \cos \theta$  (C)  $\pm\sqrt{2} \sin \theta$  (D) 1



## [SECTION - II]

## [COMPREHENSION TYPE]

This section contains 6 comprehension (15 Multiple Choice Questions). Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

[Marking Scheme: +4 marks for correct answer and -1 for wrong answer]

## Comprehension#1

If  $\alpha, \beta, \gamma$  are the zeroes of  $ax^3 + bx^2 + cx + d$ , then

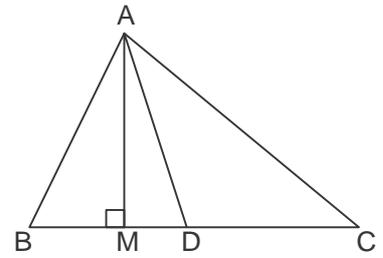
$$\alpha + \beta + \gamma = -\frac{b}{a}, \alpha\beta + \beta\gamma + \gamma\alpha = \frac{c}{a}, \alpha\beta\gamma = -\frac{d}{a}$$

56. If  $\alpha, \beta, \gamma$  are the zeroes of  $x^3 - 5x^2 - 2x + 24$  and  $\alpha\beta = 12$ , then  $\gamma =$   
 (A) 2 (B) -2 (C) 3 (D) -3
57. If  $a - b, a, a + b$  are the roots of  $x^3 - 3x^2 + x + 1$ , then  $a + b^2 =$   
 (A) 3 (B) 4 (C) 5 (D) 2
58. If two zeroes of the polynomial  $x^3 - 5x^2 - 16x + 80$  are equal in magnitude but opposite in sign, then zeroes are  
 (A) 4, -4, 5 (B) 3, -3, 5 (C) 2, -2, 5 (D) 1, -1, 5

(Space for rough work)

**Comprehension#2**

In figure, AD is a median of a triangle ABC and  $AM \perp BC$ .



59.  $AD^2 + BC \cdot DM + \left(\frac{BC}{2}\right)^2 =$

- (A)  $AC^2$  (B)  $AB^2$   
(C)  $BC^2$  (D) None of these

60.  $AD^2 - BC \cdot DM + \left(\frac{BC}{2}\right)^2 =$

- (A)  $AC^2$  (B)  $AB^2$  (C)  $BC^2$  (D) None of these

61.  $2AD^2 + \frac{1}{2}BC^2 =$

- (A)  $AC^2 + BC^2$  (B)  $AB^2 + BC^2$  (C)  $AC^2 + AB^2$  (D) None of these

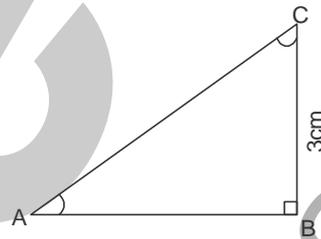
**Comprehension#3**

In  $\triangle ABC$ , right angled at B

$AB + AC = 9\text{cm}$  and  $BC = 3\text{cm}$ .

62. The value of  $\cot C$  is

- (A)  $\frac{3}{4}$  (B)  $\frac{1}{4}$   
(C)  $\frac{5}{4}$  (D) None of these



63. The value of  $\sec C$  is

- (A)  $\frac{4}{3}$  (B)  $\frac{5}{3}$  (C)  $\frac{1}{3}$  (D) None of these

64.  $\sin^2 C + \cos^2 C =$

- (A) 0 (B) 1 (C) -1 (D) None of these

(Space for rough work)

## Comprehension#4

$$\text{LCM of several fractions} = \frac{\text{LCM of their numerators}}{\text{HCF of their denominators}}$$

$$\text{HCF of several fractions} = \frac{\text{HCF of their numerators}}{\text{LCM of their denominators}}$$

65. The L.C.M of the fractions  $\frac{5}{16}$ ,  $\frac{15}{24}$  and  $\frac{25}{8}$  is  
(A)  $\frac{5}{48}$  (B)  $\frac{5}{8}$  (C)  $\frac{75}{48}$  (D)  $\frac{75}{8}$
66. The H.C.F. of the fractions  $\frac{8}{21}$ ,  $\frac{12}{35}$  and  $\frac{32}{7}$  is  
(A)  $\frac{4}{105}$  (B)  $\frac{192}{7}$  (C)  $\frac{4}{7}$  (D)  $\frac{5}{109}$

## Comprehension#5

A system of linear equations is given as follows :

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

67. Condition for two lines to have a unique solution is  
(A)  $\frac{a_1}{a_2} = \frac{b_1}{b_2}$  (B)  $\frac{a_1}{a_2} \neq \frac{c_1}{c_2}$  (C)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$  (D)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$
68. Condition for two lines to have infinitely many solutions is  
(A)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$  (B)  $\frac{a_1}{a_2} \neq \frac{c_1}{c_2}$  (C)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$  (D) None of these

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(Space for rough work)

**Comprehension#6**

For a data set, the arithmetic mean is the central value of a discrete set of numbers : specifically, the mean of a set of numbers  $x_1, x_2, \dots, x_n$  denoted by  $\bar{x}$  is

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$

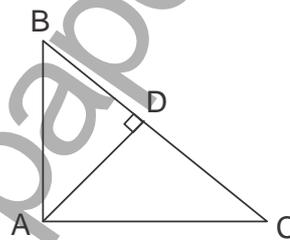
69. Mean of all the factors of 18 is  
 (A) 4.25 (B) 5 (C) 6.5 (D) 7.6
70. Mean of 9 observations was found to be 35. Later on, it was detected that an observation 80 was misread as 8. The correct mean is  
 (A) 43 (B) 42 (C) 44 (D) 45

**[SECTION - III]****[INTEGER TYPE]**

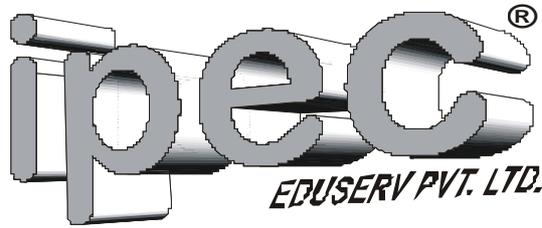
This section contains 5 Subjective Questions. The answer to each of the questions is a single digit integer, ranging from 0 to 9 (both inclusive)

[Marking Scheme: +3 marks for correct answer and -1 for wrong answer]

71. The line  $3x - 4y = K^2$  meets the x axis at  $(x_1, y_1)$  then the value of  $x_1 \times y_1$  is
72. In the given figure if  $AD \perp BC$ ,  $AC = 4$ ,  $BD = 2$ ,  $AB = a$ ,  $CD = b$ ,  
 then  $\frac{a^2 + b^2}{4}$  is equal to
73. If  $\sin x + \operatorname{cosec} x = 2$  then  $\sin^{10} x + \operatorname{cosec}^{10} x$  is equal to
74. Mode of 5, 7, 7, 8, 6, 5, 8, 7 is
75. The LCM of two numbers is 630 and their HCF is 9. If the sum of the numbers is 153 and their difference is K, then  $K/3$  is equal to.



(Space for rough work)



**SET-A**

## QUANTUM POTENTIAL TEST

[Quality Nurturer & Mind Utilizer Test for Potential Enhancement]

(IPEC Scholarship-Cum-Admission Test)

For

CLASS-X

(For X to XI Moving Students)

Time : 3 Hrs.]

[14-Oct-2018]

[Maximum Marks : 285

[PAPER-2]

(SAMPLE PAPER) ANSWER KEY

- |         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 1. (D)  | 2. (A)  | 3. (B)  | 4. (D)  | 5. (B)  |
| 6. (B)  | 7. (B)  | 8. (D)  | 9. (B)  | 10. (A) |
| 11. (B) | 12. (A) | 13. (C) | 14. (D) | 15. (D) |
| 16. (D) | 17. (A) | 18. (C) | 19. (B) | 20. (A) |
| 21. 6   | 22. 8   | 23. 2   | 24. 2   | 25. 1   |
| 26. (D) | 27. (C) | 28. (C) | 29. (C) | 30. (B) |
| 31. (A) | 32. (C) | 33. (A) | 34. (B) | 35. (A) |
| 36. (B) | 37. (B) | 38. (D) | 39. (A) | 40. (D) |
| 41. (C) | 42. (B) | 43. (A) | 44. (D) | 45. (A) |
| 46. 4   | 47. 1   | 48. 2   | 49. 4   | 50. 6   |
| 51. (D) | 52. (C) | 53. (B) | 54. (A) | 55. (B) |
| 56. (B) | 57. (A) | 58. (A) | 59. (A) | 60. (B) |
| 61. (C) | 62. (A) | 63. (B) | 64. (B) | 65. (D) |
| 66. (A) | 67. (B) | 68. (A) | 69. (C) | 70. (A) |
| 71. 0   | 72. 5   | 73. 2   | 74. 7   | 75. 9   |