FIITJEE SAMPLE PAPER - 2016

for **students presently in**

Class 10

Paper 2

Time: 3 Hours (1:45 pm – 4:45 pm) | **Code 1010** | ***Maximum Marks: 399***

Instructions:

Caution: Class, Paper, Code as given above MUST be correctly marked in the answer OMR sheet before attempting the paper. Wrong Class, Paper or Code will give wrong results.

1. This Question paper consists of 1 section. All questions will be multiple choice single correct out of four choices with marking scheme in table below:

Section – I (PCM)	Question no.	Marking Scheme for each question	
		correct answer	wrong answer
PHYSICS	1 to 9, 11 to 12, 18 to 20, 31	**+3**	**–1**
	10, 13 to 17, 21 to 23, 26, 32 to 33	**+4**	**–1**
	24 to 25, 27 to 30, 34 to 35	**+5**	**–2**
CHEMISTRY	36 to 44, 46 to 47, 53 to 55, 66	**+3**	**–1**
	45, 48 to 52, 56 to 58, 61, 67 to 68	**+4**	**–1**
	59 to 60, 62 to 65, 69 to 70	**+5**	**–2**
MATHEMATICS	71 to 79, 81 to 82, 88 to 90, 101	**+3**	**–1**
	80, 83 to 87, 91 to 93, 96, 102 to 103	**+4**	**–1**
	94 to 95, 97 to 100, 104 to 105	**+5**	**–2**

2. Answers have to be marked on the OMR sheet. The Question Paper contains blank spaces for your rough work. No additional sheets will be provided for rough work.
3. Blank papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.
4. **Before attempting paper write your OMR Answer Sheet No., Registration Number, Name** and **Test Centre** in the space provided at the bottom of this sheet.

Note: ***Please check this Question Paper contains all 105 questions in serial order. If not so, exchange for the correct Question Paper.***

OMR Answer Sheet No. : ______________________

Registration Number : ______________________

Name of the Candidate : ______________________

Test Centre : ______________________

Physics (Part – A)

Straight Objective Type

*Physics contains 35 multiple choice questions numbered 1 to 35. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

1. Magnetic field lines inside a long current-carrying solenoid are nearly
(A) elliptical (B) parabolic
(C) circular (D) straight

2. The CGS unit of magnetic field is
(A) Tesla (B) Weber
(C) Ampere (D) Gauss

3. Fuels are used in :
(A) automobiles (B) to run engine
(C) homes (D) all of them

4. Which of the following is not a solid fuel :
(A) coke (B) coal
(C) charcoal (D) kerosene

5. Advantage of using liquid fuel is :
(A) Cheaper than solid fuels
(B) Does not leave ash
(C) Has high ignition temperature in comparison to solid fuel
(D) None

6. The effective resistance of the parallel combination is
(A) Larger than the largest resistance (B) Larger than the smallest resistance
(C) Smaller than the smallest resistance (D) None of these.

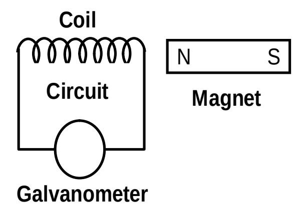
7. The material which is/are used to make the protective handles of electric tools is/are.
(A) Semi conductor (B) Conductor
(C) Both (A) & (B) (D) Insulator

8. Ampere-second stands for the unit of
(A) power (B) energy
(C) emf (D) charge

9. The net resistance of a voltmeter should be large to ensure that
(A) it does not get overheated
(B) it does draw excessive current
(C) it can measure large potential differences
(D) it does not appreciably change the potential difference to be measured.

Space for Rough Work

10. What will be the direction of current when seen from the magnet side when both the Circuit and Magnet moves uniformely with the same speed along a straight line.
(A) Clockwise (B) Anticlockwise
(C) No current will flow through the circuit (D) None of these



11. Cadmium rods are used in a nuclear reactor for
(A) slowing down fast neutrons
(B) speeding up slow neutrons
(C) absorbing neutrons
(D) producing neutrons

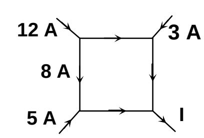
12. Natural gas mainly consists of
(A) Ethane (B) Methane
(C) Propane (D) Butane

13. The material used in the space between the fuel rods in a nuclear reactor is called
(A) moderator (B) coolant
(C) water (D) reactor core

14. A magnetic field:
(A) always exerts a force on a charged particle
(B) exerts a force only if the charged particle is at rest
(C) exerts a force if the charged particle is moving across
(D) exerts a force if the charged particle is moving along the field

15. A man has five resistors each of value 1/5 Ω. What is the maximum resistance he can obtain by connecting them?
(A) 1 Ω (B) 5 Ω
(C) ½ Ω (D) 2/5 Ω

16. Figure shows a network of currents. The magnitude of currents is shown here. The current I will be
(A) –3A (B) 3A
(C) 13 A (D) 20 A



17. Which of the following fields are produced by a moving electric charge :
1) Electric field
2) Magnetic field
3) Gravitational field
(A) 1 & 3 are correct (B) 1 & 2 are correct
(C) 2 & 3 are correct (D) All are correct

Space for Rough Work

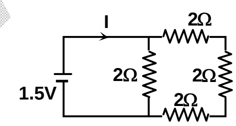
18. Electric motor
(A) converts electrical energy into kinetic energy
(B) measures electric current
(C) measures potential difference
(D) provides a constant potential difference.

19. In chulhas, gaps are left between the logs :
(A) To decrease the ignition temperature
(B) To allow the air to enter and facilitate fuel burning
(C) To cut off the supply of air
(D) All of these

20. Choose correct statement :
(A) solar energy is renewable source of energy
(B) solar energy causes pollution
(C) solar energy is available in plenty, all the time at all the places
(D) none

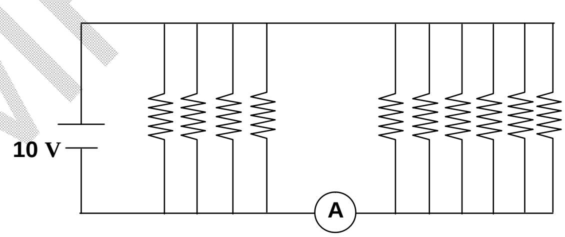
21. Three resistors $R_1 = 4\ \Omega$, $R_2 = 3\ \Omega$ and $R_3 = 6\ \Omega$ are given. Which of the following combinations will give an effective resistance of 6 Ω ?
(A) R_3 and R_1 in parallel in series with R_2
(B) R_1 and R_2 in parallel in series with R_3
(C) R_2 and R_3 in parallel in series with R_1
(D) None of these.

22. The value of I will be :
(A) 1 amp
(B) 2 amp
(C) 3 amp
(D) 4 amp



23. A circular coil A of radius r carries current I. Another circular coil B of radius 2r carries current of I. The magnetic fields at the centres of the circular coils are in the ratio of
(A) 3 : 1
(B) 4 : 1
(C) 1 : 1
(D) 2 : 1

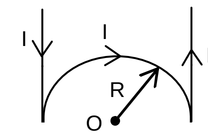
24. In the given figure if each resistance is of 10 Ω then reading of the ammeter is



(A) 1 A
(B) 4 A
(C) 3 A
(D) 6 A

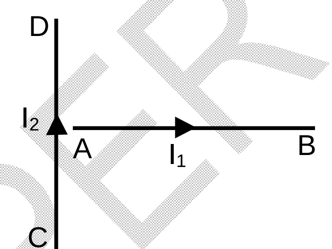
Space for Rough Work

25. A straight thin conductor is bent as shown in figure. It carries a current I. Magnitude of magnetic field at the centre of semicircular arc is :–



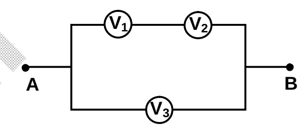
(A) $\frac{2\mu_0 I}{4\pi R}$
(B) $\frac{\mu_0 I}{4R}\left(1-\frac{2}{\pi}\right)$
(C) $\frac{\mu_0 I}{2R}\left(1+\frac{1}{\pi}\right)$
(D) zero

26. A current I_1 carrying wire AB is placed near another long wire CD carrying current I_2. If AB is free to move then it will move :



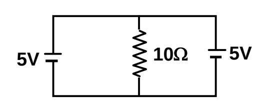
(A) Towards left
(B) Towards Right
(C) Upwards
(D) Downwards

27. Three voltmeters, all having different resistances, are joined as shown in the figure. When some P.d. is applied across P and Q, their readings are V_1, V_2 and V_3 respectively. Then



(A) $V_1 = V_2$
(B) $V_1 \neq V_2$
(C) $V_1 + V_2 < V_3$
(D) $V_1 + V_2 > V_3$

28. Find the current in the resistance 10 Ω.



(A) 2 A
(B) 0.5 A
(C) 1 A
(D) 1.5 A

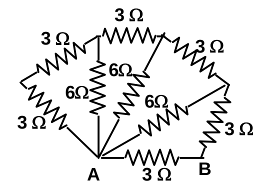
29. Two resistors R and 2R are connected in series in an electric circuit. The thermal energy developed in R and 2R are in the ratio
(A) 1 : 2
(B) 2 : 1
(C) 1 : 4
(D) 4 : 1

30. A coil of one turn is made of a wire of certain length and then from the same length a coil of two turns is made. If the same current is passed in both the cases, then the ratio of the magnetic field at their centres will be
(A) 2 : 1
(B) 1 : 4
(C) 4 : 1
(D) 1 : 2

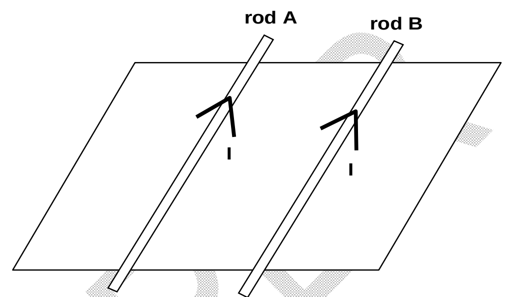
31. Which part of solar radiations are harmful for skin :
(A) ultraviolet
(B) visible
(C) infrared
(D) none

Space for Rough Work

32. The resistances in the following figure are in ohm. Then the effective resistance between the points A and B is:
(A) 2 Ω (B) 3 Ω
(C) 6 Ω (D) 36 Ω

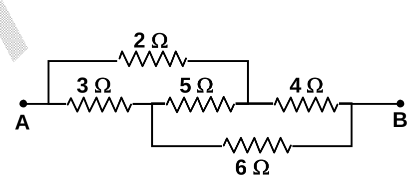


33. In the given figure, force on rod A and rod B are in direction respectively:
(A) Rightward direction, leftward direction
(B) Rightward direction, Rightward direction
(C) Leftward direction, Leftward direction
(D) Leftward direction, Rightward direction



34. An electron has a circular path of radius 0.01 m in a perpendicular magnetic induction 10^{-3} T. The speed of the electron is nearly
(A) 1.76×10^4 m/s (B) 1.76×10^6 m/s
(C) 3.52×10^6 m/s (D) 7.04×10^6 m/s

35. In the circuit shown, some potential difference is applied between A and B. Find the equivalent resistance between A and B .



(A) $R = \frac{18}{5}\Omega$
(B) $R = 15\ \Omega$
(C) $R = 0\ \Omega$
(D) $R = 6\ \Omega$

Space for Rough Work

Chemistry (Part – B)

Straight Objective Type

*Chemistry contains 35 multiple choice questions numbered 36 to 70. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

36. A solution turns blue litmus red. The pH of the solution is probably
(A) 8
(B) 10
(C) 12
(D) 6

37. The type of medicine used to treat indigestion is
(A) Antihistamic
(B) sulpha drug
(C) Antacid
(D) Antibiotic

38. For dilution of a concentrated acid, we should add
(A) Water into the concentrated acid
(B) Concentrated acid into water
(C) Both the above are correct
(D) First water into acid and then more acid

39. Lemon juice and coffee are
(A) Both acidic
(B) Both basic
(C) Lemon juice is acidic, coffee is basic
(D) Lemon juice is basic, coffee is acidic

40. The soil for healthy growth of plants should be
(A) Highly acidic
(B) Highly alkaline
(C) Neither alkaline nor highly acidic
(D) Neither acidic nor highly alkaline

41. The valency of phosphate ion is
(A) –1
(B) –2
(C) +3
(D) –3

42. Which of the following reaction will not take place?
(A) $Zn + FeSO_4 \rightarrow ZnSO_4 + Fe$
(B) $2KI + Cl_2 \rightarrow 2KCl + I_2$
(C) $Zn + MgSO_4 \rightarrow ZnSO_4 + Mg$
(D) $Mg + CuSO_4 \rightarrow MgSO_4 + Cu$

43. In the following equation
$Na_2CO_3 + xHCl \rightarrow 2NaCl + CO_2 + H_2O$
the value of x is
(A) 1
(B) 2
(C) 3
(D) 4

44. Bauxite is the most important ore of
(A) Aluminium
(B) Iron
(C) Copper
(D) Lead

45. Elements of group 17 are known as
(A) Chalcogens
(B) Noble gases
(C) Halogens
(D) Transition elements

Space for Rough Work

46. Which of the following are made up of bases?
(A) Antacid tablet
(B) Soap
(C) Toothpaste
(D) All of the above

47. The pH of solutions A, B, C, D are 9.5, 2.5, 3.5 and 5.5 respectively. The most acidic solution is
(A) A
(B) B
(C) C
(D) D

48. Which of the following will not give H^+ ions in aqueous solution?
(A) H_2CO_3
(B) $(COOH)_2$
(C) C_2H_5OH
(D) CH_3COOH

49. Which of the following is not a characteristic of a base?
(A) They have a bitter taste
(B) They turn red litmus blue
(C) They show a red colour with methyl orange
(D) Their aqueous solutions conduct electricity

50. Which three numbers a, b and c are required to balance the equation?
$$aLi(s) + bO_2(g) \longrightarrow cLi_2O(s)$$
(A) 4 2 1
(B) 2 1 2
(C) 4 1 2
(D) 1 1 1

51. Given the following three observations of the reactions of four metals
(i) Metal O will displace metal N from its chloride
(ii) Only metal L reacts with cold water
(iii) Metal N reacts faster with acid than metal M
What is their reactivity order, from the most reactive to least reactive?
(A) O > L > N > M
(B) M > O > N > L
(C) L > O > N > M
(D) L > N > O > M

52. Because of high electropositivity, the atoms of metals can easily form
(A) Positive ions
(B) Negative ions
(C) Neutral ions
(D) Covalent bonds

53. Among the following sulphide ore is
(A) Calamine
(B) Gypsum
(C) Galena
(D) Zincite

54. The unwanted material in an ore is known as
(A) Flux
(B) Gangue
(C) Slag
(D) Mineral

55. Acetic acid is a weak acid because
(A) Its aqueous solution is acidic
(B) It is highly ionized
(C) It is weakly ionized
(D) It contains –COOH group

Space for Rough Work

56. When one of the following is correct?
(A) Both bases and alkalies are soluble in water
(B) Alkalies are soluble in water but all bases are not
(C) Bases are soluble in water but all alkalies are not
(D) C_2H_5OH is a base because it has OH group

57. A 10^{-4} M NaOH solution will have a pH of
(A) 4
(B) 6
(C) 8
(D) 10

58. Which four numbers a, b, c and d are required to balance the equation?
$aAl(OH)_3(s) + bHCl(aq) \longrightarrow cAlCl_3(aq) + dH_2O(\ell)$
(A) 2 3 2 3
(B) 1 3 1 3
(C) 1 6 2 6
(D) 2 6 2 3

59. Which of the following is not a thermal decomposition reaction?
(A) $2H_2O \rightarrow 2H_2 + O_2$
(B) $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$
(C) $ZnCO_3 \rightarrow ZnO + CO_2$
(D) $2KClO_3 \rightarrow 2KCl + 3O_2$

60. Dolomite is
(A) An acid salt
(B) A mixed salt
(C) A normal salt
(D) A double salt

61. Partial neutralization of a polybasic acid gives
(A) Acid salt
(B) Basic salt
(C) Normal salt
(D) Double salt

62. Calculate the pH of 0.005 M H_2SO_4 solution.
(A) 1
(B) 3
(C) 2
(D) 5

63. Calcination occurs
(A) In presence of air
(B) In absence of air
(C) Both
(D) None

64. In the reaction, $2FeCl_2 + Cl_2 \rightarrow 2FeCl_3$ chlorine may be regarded as
(A) An oxidizing agent
(B) A reducing agent
(C) A catalyst
(D) Providing an inert medium

65. Oxides of metals are generally
(A) Acidic
(B) Basic
(C) Amphoteric
(D) Neutralization

Space for Rough Work

66. For the following reaction: $Fe_2O_3 + 3CO \longrightarrow 2Fe + 3CO_2$. Which acts as an 'reducing agent'?
(A) CO_2
(B) Fe
(C) CO
(D) Fe_2O_3

67. Which of the following represents an 'oxidation only' change?
(A) $Cu^{2+}(aq) + 2e^- \longrightarrow Cu(g)$
(B) $Mg(s) + Fe^{2+}(aq) \longrightarrow Mg^{2+}(aq) + Fe(s)$
(C) $Cl_2(aq) + 2e^- \longrightarrow 2Cl(aq)$
(D) $Zn(s) - 2e^- \longrightarrow Zn^{2+}(s)$

68. The highest ionization energy is exhibited by
(A) Halogens
(B) Alkaline earth metals
(C) Transition metals
(D) Noble gases

69. When a base is dissolved in water?
(A) Concentration of OH^- ions per unit volume increases
(B) Concentration of OH^- ions per unit volume decreases
(C) Concentrating of OH^- ions per unit volume may increase or decrease depending upon the nature of the base
(D) No change in concentration of OH^- ions per unit volume occurs

70. AgCl is called as
(A) German silver
(B) Cinnabar
(C) Horn silver
(D) None

Space for Rough Work

Mathematics (Part – C)

Straight Objective Type

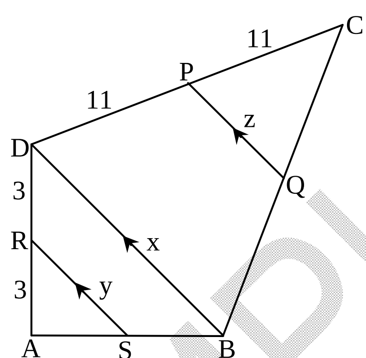
*Mathematics contains 35 multiple choice questions numbered 71 to 105. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

71. If x+2 is a factor of $x^2+ax+2b$ and $a+b=4$, then
(A) a=1,b=3 (B) a=3,b=1
(C) a=-1,b=5 (D) a=5,b=-1

72. Two poles of height 6 m and 11 m stand vertically upright on a plane ground. If the distance between their foot is 12 m, the distance between their tops is
(A) 12 m (B) 14 m
(C) 13 m (D) 11 m

73. In a right triangle ABC right-angled at B, if P and Q are points on the sides AB and BC respectively, then
(A) $AQ^2+CP^2=2(AC^2+PQ^2)$ (B) $2(AQ^2+CP^2)=AC^2+PQ^2$
(C) $AQ^2+CP^2=AC^2+PQ^2$ (D) $AQ+CP=\frac{1}{2}(AC+PQ)$.

74. In the figure, $RS \parallel DB \parallel PQ$. If CP=PD=11cm and DR=RA=3cm. Then the values of x, y and z can be



(A) 12, 10, 12 (B) 14, 6, 6
(C) 10, 7, 10 (D) 16, 8, 8

75. If $3\cos\theta=5\sin\theta$, then the value of $\frac{5\sin\theta-2\sec^3\theta+2\cos\theta}{5\sin\theta+2\sec^3\theta-2\cos\theta}$ is
(A) $\frac{271}{979}$ (B) $\frac{316}{2937}$
(C) $\frac{542}{2937}$ (D) None of these

Space for Rough Work

76. $\frac{\cot\theta}{\cot\theta-\cot 3\theta}+\frac{\tan\theta}{\tan\theta-\tan 3\theta}$ is equal to

(A) 0 (B) 1
(C) -1 (D) 2

77. If a and b can take values 1,2,3,4.Then the number of the equations of the form $ax^2+bx+1=0$ having real roots is

(A) 10 (B) 7
(C) 6 (D) 12

78. If $(a^2+c^2)x^2+2(ab+cd)x+b^2+d^2=0$ has no real roots, then

(A) ad = bc (B) ab = cd
(C) ac = bd (D) $ad \neq bc$

79. An isosceles triangle has two equal sides of length 'a' and angle between them is α. The area of the triangle is

(A) $a^2 \cos\alpha$ (B) $\frac{a^2}{2}\cos\alpha$
(C) $\frac{a^2}{2}\sin\alpha$ (D) $a^2 \sin\alpha$

80. ABC is an isosceles right triangle $\angle B=90^o$. Similar triangles ACD and ABE are constructed an sides AC and AB. The ratio between the areas of ΔABE and ΔACD is

(A) 1 : 2 (B) 2 : 1
(C) $1:\sqrt{2}$ (D) 1 : 4

81. If A lies in II quadrant and $3\tan A+4=0$, then value of $2\cot A-5\cos A+\sin A$ is equal to

(A) $-\frac{53}{10}$ (B) $\frac{23}{10}$
(C) $\frac{37}{10}$ (D) $\frac{7}{10}$

82. If $\sin x+\cos x=\sqrt{y+\frac{1}{y}},\ x\in[0,\ \pi]$, then

(A) $x=\frac{\pi}{4}$ (B) $x=\frac{3\pi}{4}$
(C) $x=\frac{5\pi}{4}$ (D) $x=\frac{7\pi}{8}$

Space for Rough Work

83. $\frac{\cos\theta}{p} = \frac{\sin\theta}{q}$. Then, $\frac{p}{\sec 2\theta} + \frac{q}{\operatorname{cosec} 2\theta}$ is

(A) p
(B) q
(C) pq
(D) $\frac{p}{q}$

84. The system of linear equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ have no solution if

(A) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$
(B) $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$
(C) $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$
(D) none of these

85. The value of k for which the system of equations $kx - y = 2$ and $6x - 2y = 3$ has a unique solution is

(A) $k \neq 2$
(B) $k = 3$
(C) $k \neq 6$
(D) $k \neq 3$

86. The values of a and b for which the following system of equations has infinitely many solutions $(2a - 1)x - 3y = 5$, $3x + (b - 2)y = 3$ are

(A) $\frac{1}{5}, 3$
(B) $4, \frac{1}{2}$
(C) $3, \frac{1}{5}$
(D) $2, \frac{1}{3}$

87. The line $x - y = 3$ passes through

(A) 1st, 2nd and 3rd quadrant
(B) 1st, 3rd and 4th quadrant
(C) 1st, 2nd and 4th quadrant
(D) 2nd, 3rd and 4th quadrant

88. If the polynomials $ax^3 + 4x^2 + 3x - 4$ and $x^3 - 4x + a$ leave the same remainder when divided by $(x - 3)$, the value of a is

(A) –1
(B) 1
(C) 1/2
(D) –1/2

89. The LCM of $xy + yz + zx + y^2$ and $x^2 + xy + yz + zx$ is

(A) $x + y$
(B) $y + z$
(C) $(x + y)(y + z)(z + x)$
(D) $x^2 + y^2$

90. If $x - \frac{1}{x} = 2$, then the value of $x^4 + \frac{1}{x^4}$ is

(A) 4
(B) 8
(C) 12
(D) 34

Space for Rough Work

91. $\frac{2}{x-2}+\frac{4}{x-3}=\frac{6}{x-1}$, $x \in R$, $x \neq 1$, $x \neq 2$, $x \neq 3$, then x is equal to
(A) 16/5
(B) 11/5
(C) 21/5
(D) 23/5

92. $ax^3 + bx^2 + cx + d = 0$ is said to be cubic polynomial if:
(A) $d \neq 0$
(B) $c \neq 0$
(C) $b \neq 0$
(D) $a \neq 0$

93. If α and β are the zeroes of the polynomial $f(x) = x^2 + px + q$, then a polynomial having $\frac{1}{\alpha}$ and $\frac{1}{\beta}$ as its zeroes is:
(A) $x^2 + qx + p$
(B) $x^2 - px + q$
(C) $qx^2 + px + 1$
(D) $px^2 + qx + 1$

94. If α, β are the zeroes of the polynomial $f(x) = x^2 - p(x + 1) - c$, then $(\alpha + 1)(\beta + 1)$ is equal to:
(A) $c - 1$
(B) $1 - c$
(C) c
(D) $1 + c$

95. Every quadratic polynomial can have at the most:
(A) one zero
(B) two zeroes
(C) three zeroes
(D) four zeroes

96. $\sec^2\theta - \sec^2\theta \operatorname{cosec}^2\theta$ is equal to
(A) $\sec^2\theta$
(B) $\operatorname{cosec}^2\theta$
(C) $-\operatorname{cosec}^2\theta$
(D) None of these

97. If $\tan\theta = \frac{12}{5}$, find the value of $\sin\theta - \cos\theta$ is
(A) $\frac{5}{13}$
(B) $\frac{6}{13}$
(C) $\frac{17}{13}$
(D) $\frac{7}{13}$

98. The value of $\sin(45^\circ + \theta) - \cos(45^\circ - \theta)$ is equal to
(A) $2\cos\theta$
(B) $2\sin\theta$
(C) 1
(D) 0

99. The value of $\frac{1-\tan 10^\circ}{1+\tan 10^\circ}$ is equal to
(A) $\tan 55^\circ$
(B) $\tan 35^\circ$
(C) $\tan 45^\circ$
(D) None of these

Space for Rough Work

100. The value of cos 15^0 is

(A) $\frac{\sqrt{3}+1}{2\sqrt{2}}$ (B) $\frac{\sqrt{3}-1}{2\sqrt{2}}$

(C) $\frac{\sqrt{3}}{2\sqrt{2}}$ (D) none of these

101. The minimum value of cos(cosx) is

(A) 0 (B) –cos1

(C) cos1 (D) –1

102. If sinx = $\cos^2x$, then $\cos^2x(1 + \cos^2x)$ is equal to

(A) 0 (B) 1

(C) 2 (D) none of these

103. If ΔABC and ΔDEF are similar such that 2AB = DE and BC = 8cm, then EF =

(A) 16 cm (B) 12 cm

(C) 8 cm (D) 4 cm

104. D, E, F are the mid points of the sides BC, CA and AB respectively of a ΔABC. The ratio of the areas of ΔDEF and ΔABC is

(A) 1 : 2 (B) 1 : 3

(C) 1 : 4 (D) 1 : 8

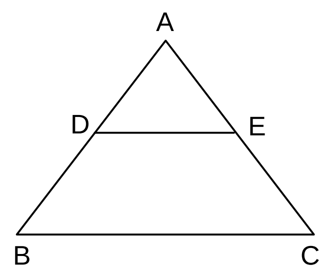
105. In the figure, DE || BC and AD : DB = 2 : 3, then ar(ΔADE) : ar(ΔABC) is

(A) 2 : 5

(B) 2 : 3

(C) 3 : 5

(D) 4 : 25



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FIITJEE SAMPLE PAPER – 2016

***for* students presently in**

Class 10

Paper 2

ANSWERS

1.	**D**	2.	**D**	3.	**D**	4.	**D**
5.	**B**	6.	**C**	7.	**D**	8.	**D**
9.	**D**	10.	**C**	11.	**C**	12.	**B**
13.	**A**	14.	**C**	15.	**A**	16.	**D**
17.	**D**	18.	**A**	19.	**B**	20.	**A**
21.	**C**	22.	**A**	23.	**D**	24.	**D**
25.	**B**	26.	**C**	27.	**B**	28.	**B**
29.	**A**	30.	**B**	31.	**A**	32.	**A**
33.	**A**	34.	**B**	35.	**A**	36.	**D**
37.	**C**	38.	**B**	39.	**A**	40.	**C**
41.	**D**	42.	**C**	43.	**B**	44.	**A**
45.	**C**	46.	**D**	47.	**B**	48.	**C**
49.	**C**	50.	**C**	51.	**C**	52.	**A**
53.	**C**	54.	**B**	55.	**C**	56.	**B**
57.	**D**	58.	**B**	59.	**A**	60.	**D**
61.	**A**	62.	**C**	63.	**B**	64.	**A**
65.	**B**	66.	**C**	67.	**D**	68.	**D**
69.	**B**	70.	**C**	71.	**B**	72.	**C**
73.	**C**	74.	**D**	75.	**A**	76.	**B**
77.	**B**	78.	**D**	79.	**C**	80.	**A**
81.	**B**	82.	**A**	83.	**A**	84.	**B**
85.	**D**	86.	**C**	87.	**B**	88.	**A**
89.	**C**	90.	**D**	91.	**B**	92.	**D**
93.	**C**	94.	**B**	95.	**B**	96.	**C**
97.	**D**	98.	**D**	99.	**B**	100.	**A**
101.	**C**	102.	**B**	103.	**A**	104.	**C**
105.	**D**						