Maximum Questions: 100   **Maximum Marks: 200**

1. **Correct Option (a)**
   Exp: From the passage it can be inferred that the main point of the passage is about training in ethics that incorporates narrative literature would better cultivate flexible ethical thinking and increase medical students' capacity for empathetic patient care as compared with the traditional approach of medical schools to such training.

2. **Correct Option (d)**
   Exp: In the passage, it is mentioned that "To grasp the development of character, to tangle with heightening moral crises, and to engage oneself with the story not as one's own but nevertheless as something recognizable and worthy of attention, readers must use their moral imagination." From this, it can be implied that the ability to understand personal aspects of ethically significant situations even if one is not a direct participant and to empathize with those involved in them represents the author's use of the term "moral imagination".

3. **Correct Option (c)**
   Exp: From the first and second paragraphs of the passage we can infer that according to the author neither scientific training nor traditional philosophical ethics adequately prepares doctors to deal with the emotional dimension of patients' needs.

4. **Correct Option (a)**
   Exp: In the passage, it is mentioned that "the conceptual clarity provided by a traditional ethics course can be valuable, theorizing about ethics contributes little to the understanding of everyday human experience or to preparing medical students for the

multifarious ethical dilemmas they will face as physicians." From this, it can be implied that the author's attitude regarding the method of teaching ethics in medical school can most accurately be described as partial disapproval of the method and approval of some of its effects.

5. **Correct Option (d)**
   Exp: In the passage it is mentioned that "Politicians and generals talk of military strategies and manoeuvres but something completely different is needed. Stability will come only when economic opportunities exist" implies stability can be achieved by providing economic opportunities.

6. **Correct Option (b)**
   Exp: Total interest = Principal amount (P) × Simple Interest (R) × Time (T)

   The sum becomes k times of itself in 16 years

   The interest in 16 years = (K - 1) times principal (as sum = principal amount + interest)

   In 16 years, $(K - 1) \times P = P \times R \times 16 \Rightarrow (K - 1) = R \times 16$

   Again in 40 years, $(2K - 1) \times P = P \times R \times 40$

   Solving R = 1/8 and K = 3

   $(4K - 1) \times P = P \times R \times T \Rightarrow (4 \times 3 - 1) = T/8 \Rightarrow$ 88 years.

7. **Correct Option (a)**
   Exp: Let the cost price be x.
   Then, loss = (x - 720)

Again, profit = (960 - x)

Now, (960 - x)/2 = (x - 720) or, 960 - x = 2x – 1440 or,

3x = 960 + 1440 = 2400 => x = 2400/3 = 800

Selling price = (800x120)/100 = Rs. 960

8. **Correct Option (b)**
Exp: Let the quantity of the lemon juice in the cask originally be x litres.

Then, quantity of lemon juice left in cask after 4 operations

$= [x (1 - x / 8)^4] \, litre$

$\Rightarrow \left\{ \dfrac{x \left[1 - \left(\frac{8}{x} \right) \right]^4}{x} \right\} = \dfrac{16}{81}$

$= \left(1 - \dfrac{8}{x} \right)^4 = \left(\dfrac{2}{3} \right)^4$

$= [(x - 8) / x] = 2\,3$
$\Rightarrow 3x - 24 = 2x$
$\Rightarrow x = 24.$

9. **Correct Option (a)**
Exp: In the passage it is mentioned that "Genetic variation is the cornerstone of evolution" implies that Genetic variation is important for evolution.

10. **Correct Option (b)**
Exp: from the passage it can be inferred that genetic diversity is proportional to the ability of a species to survive and reproduce.

11. **Correct Option (c)**
Exp: In the first paragraph of the passage Author mentioned realization has at bottom an element of faith without which it cannot be sustained and in the same paragraph it is mentioned that complete realization is impossible in this embodied life. So, both conclusion 1 and 2 follows.

12. **Correct Option (c)**
Exp: From the given line Author want to mention that we are so much involved in our daily life that we don't notice the continuous presence of God.

13. **Correct Option (b)**
Exp: In second paragraph Author mentioned "God to be God must rule the heart and transform it. He must express Himself in every smallest act of His votary" implies the same as given in conclusion 2 and 3.

14. **Correct Option (d)**
Exp: From the passage it is concluded none of the given options can be drawn from the passage.

15. **Correct Option (a)**
Exp: From the passage it can be inferred that the workings in a honeybee hive that regulate reproduction is similar to a totalitarian society in which citizens" "policing" of each other's actions helps to maintain the status quo.

16. **Correct Option (b)**
Exp: The passage best support the inference that an individual worker's fitness can be maintained without the individual herself reproducing.

17. **Correct Option (d)**
Exp: From the passage it can be deduced that the eggs are less likely to be harmed by other workers if the queen is dead.

18. **Correct Option (c)**
Exp: In problem figure the cross moves one step ahead to the right and a new similar element is added further. This goes on ina cyclical order from left to right.

19. **Correct Option (a)**
Exp:
Let, A invested = x
B invested = 10000 + x
C invested = 25000 + x
So, 3x + 35000 = 215000

$x = \dfrac{180000}{3} = 60000$

A invested = 60000
B invested = 70000
C invested = 85000

Ratio in investment = 60 : 75 : 85
$$= 12 : 15 : 17$$

Share of A = $\dfrac{13200}{44} \times 12 = 3600$
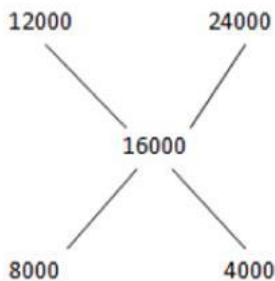
Share of B = $\dfrac{13200}{44} \times 15 = 4500$

Share of C = $\dfrac{13200}{44} \times 17 = 5100.$

20. Correct Option (a)
Exp:
By alligation method,
Ratio of rest of the employees to senior =
8000 : 4000 = 2 : 1

Given 1 part = 7
Hence 2+1 or 3 parts = 7×3 = 21.
Hence, total number of employees = 21.

21. Correct Option (c)
Exp: Number 3(*) is common to the two
positions of the block.
We assume the block in fig. (ii) to be
rotated so that 3(*) appears in the same
position as in fig. (i) i.e. on RHS face (i.e. on
face II as per activity
1) and the numbers 5(*) and 2(*)
moves to the faces hidden behind the
numbers 4(*) and 6(*) respectively [in
fig. (i)].
Thus, the combined figure will
have 3(*) on RHS face (i.e. face II), 4(*)
on the front face (i.e. face I), 6(*) on the
Top face (i.e. face V), 5(*) on the Rear
face (i.e. face III) and 2(*) on the Bottom
face (i.e. face VI). Clearly, when 2(*) is
at the bottom; then 6(*) is at the top.

22. Correct Option (c)

Exp: Let the speed or rate of Train B = x km/hr
Relative speed of Train
A and B = (130+x) km/hr (Approaching each
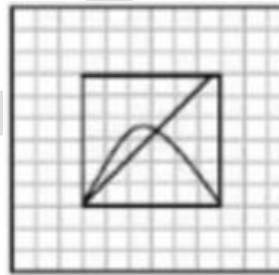   other)
By the formulae,

$$\frac{15}{60} = \frac{120}{(130 + x)}$$

130 + x = 480
    x = 350km/hr

23. Correct Option (d)
Exp:

The diagonally opposite figures are mirror
     images of each other.

24. Correct Option (c)
Exp: The passage emphasizes that affirmation
of a new culture involves viewing the
whole, including the points that are less
desirable.

25. Correct Option (d)
Exp: The passage states that appreciative
inquiry must precede cultural changes
in an organization.

26. Correct Option (a)
Exp: A heightened roller coaster effect, and
not an opportunity for a roller coaster
ride, is a characteristic of the stage of
small victories.

27. Correct Option (a)
  Exp:

  $\text{Number of buses} = \dfrac{23}{100} \times 1800 = 414$

  $\text{After 50\% increase} = 414 \times \dfrac{150}{100} = 621$

  $\text{Number of rikshaws} = \dfrac{12}{100} \times 1800 = 216$

  $\text{After 25\% decrease} = 216 \times \dfrac{75}{100} = 162$

  Required ratio $= 621/162 = 23 : 6$

28. Correct Option (a)
  Exp:

  $\text{Bikes} = 1800 \times \dfrac{27}{100} = 486 - 36 = 450$

  $\text{Scooter} = \dfrac{8}{100} \times 1800 = 144$

  Total $= 450 + 144 = 594$

  Cars, Autos and Rickshaws

  $= (\dfrac{13}{100} \times 1800 + \dfrac{17}{100} \times 1800 - 16 + \dfrac{12}{100} \times 1800) = 740$

  Required Difference $= 740 - 594 = 146$

29. Correct Option (b)
  Exp:
  Number of buses = 1800 × 23/100 = 414
  Number of cars = 1800 × 13/100 = 234
  ATQ,
  New number of buses = 414 + 26 = 440
  New numbers of cars = 234 - 26 = 208
  Required percentage = 208/440 × 100 = 47.27% ; 47%

30. Correct Option (a)
  Exp:
  Total estimate = Rs. 725.5 lakh;
  Estimate of contingencies
  = (1 + 15 + 4.2 + 5)
  = Rs.25.2 lakh.
  Now as the estimate of contingencies is doubled, it increases by Rs.25.2 lakhs.
  And hence the percentage increase in the total estimate is [25.2 / 725.5] ×100 = 3.47%

31. Correct Option (b)
  Exp:
  Till 1990, actual amount spent
  = Rs.725.5 lakhs
  Expenditure for 1991 as estimated
  = 209.5 lakhs.
  Required percentage increase
  = [209.5 / 725.5] × 100 = 28.89%

32. Correct Option (b)
  Exp:
  In the given table we can see that the costs that can be taken under the head "Materials" are : Cement, Steel, Bricks and Other building materials.
  The estimated cost of these heads in 1990
  = 80 + 45 + 12 + 18 = 155
  The estimated cost of these heads in 1991
  = 75 + 60 + 16 + 21 = 172
  Since the cost of material rises by 5%, hence it would rise by
  0.05×(155 + 172) = Rs.16.35 lakhs.

33. Correct Option (b)
  Exp:
  The estimated costs of material and labour for different years are :
  1988 = 2.1
  1989 = 95 + 70 + 15 + 25 + 25 = 230
  1990 = 80 + 45 + 12 + 18 + 20 = 175
  1991 = 75 + 60 + 16 + 21 + 18 = 190
  Required proportion

  $= \dfrac{2.1 + 230 + 175}{2.1 + 230 + 175 + 190} = 0.682$

34. Correct Option (a)
  Exp:
  Ratio of Investment of A, B and
  C = 22:30:23
  Hence Profit should be divided in the ratio of
  22 × 4 + 33 × 8:30 × 6 + 15 × 6 : 23 × 12
  or 352 : 270 : 276 or 176 : 135 : 138
  (Consider the period to be 12 months)
  Hence difference between shares between B and C

$$= \frac{138 - 135}{176 + 138 + 135} \times 44900 = 300$$
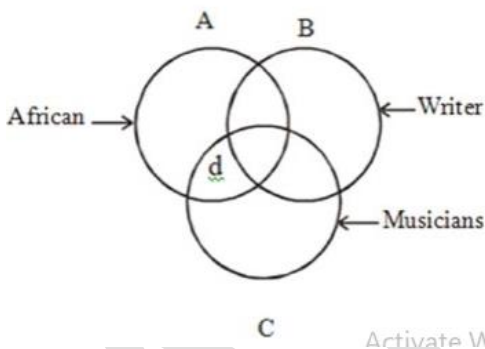
35. Correct Option (c)
Exp: This answer goes without guessing. There are two parties in the game, and each has its own strategy and a guess on the opponent's move. (a) involves more of cooperation strategies than game plans. (b) is competition involving more than two candidates. (d) is about cartels.

36. Correct Option (d)
Exp: (a) would only result in more cars per family. (b) and (c) defeat Athens' purpose as citizens devise ingenious methods to maintain status quo both in terms of number of cars and congestion.
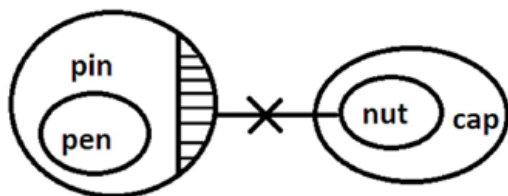
37. Correct Option (a)
Exp:
Area is common to A and C.

38. Correct Option (a)
Exp: The given statements can be represented as,

I. Some nuts are not pin – It is not true.
   II. Some pins are not cap – It is not true.
   Thus neither I nor II is true.

39. Correct Option (b)
Exp:
The pattern is,
$2 \times 2 + 1 = 5$, $5 \times 2 - 1 = 9$

$9 \times 2 + 1 = 19$, $19 \times 2 - 1 = 37$
$37 \times 2 + 1 = 75$, $75 \times 2 - 1 = 149$
Similarly,
$149 \times 2 + 1 = 299$

40. Correct Option (c)
Exp: April & July for all years has the same calendar. So, a day on any date of April will be the same day on the corresponding date in July.
∴ The same day will fall on 15th July of the same year.

41. Correct Option (d)
Exp: Gender of Mina cannot be determined.

42. Correct Option (b)
Exp: (b) is the correct answer choice Apparently McNeill is a Westerner who is doing some sort of research on the role of the Brahmin priest in ancient Indian society. From the way his thoughts are evolving in the passage (recite– memorize– dissemination– duplicated), McNeill can only understand the role of a Vedic priest by drawing a direct analogy between the Vedic priest, whom he does not understand except superficially, and a recorded audio casette, which is an essential and ubiquitous item in McNeill's world.
(a) and (d) are more or less stated in the passage, so there is no inference involved.
'... practice of reciting Vedas was essential ...' means that it was an obligation and '... when the Vedas had not yet been written down ...' means Vedic hymns had not been scripted.
(c) also is less of an inference and more of a surmise.
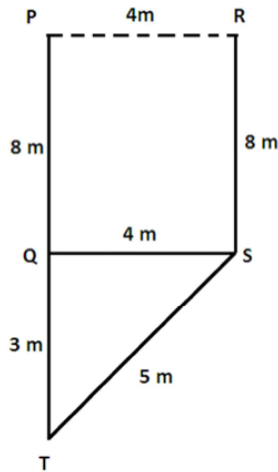
43. Correct Option (a)
Exp:
The required percentage
$$= \frac{1350 + 1540}{1520 + 1653} \times 100 = \frac{2890}{3173} \times 100 = 91\%$$

44. Correct Option (b)
Exp:
Total number of late arrivals = 1520 - 1350 = 170

45. Correct Option (d)
Exp:

Thus, P is to the West of point R.

46. Correct Option (c)
Exp: The number 2 is common to both the figures. We assume the parallelepiped in fig. (ii) to be rotated so that 2 appears in the same position as in fig. (i) i.e. on the RHS face and the numbers 6 and 3 moves to the faces hidden behind the numbers 1 and 5 respectively [in fig. (i)]. Then, the combined figure will have 1 opposite 6 and 5 opposite 3. Thus, when 3 will be on the top, then 5 will appear at the bottom.

47. Correct Option (c)
Exp:
Let his average speed over the last stretch be x.

Hence, his average speed for first two stretches = 4x.

So the total time taken to cover the three

$$\text{stretches} = \frac{4}{4x} + \frac{2}{x}$$

His average speed over the race is 20 km/hr.

Hence, the time taken to complete the

$$\text{race} = \frac{6}{20}$$

Hence, we have the equation

$$= \frac{4}{4x} + \frac{2}{x} = \frac{6}{20}$$

Solving this equation, we get x = 10 km/hr.

48. Correct Option (d)
Exp:
(17 - 13) × (11 - 3) = 4 × 8 = 32
(19 - 8) × (13 - 10) = 11 × 3 = 33
Similarly,
(21 - 3) × (27 - 23) = 18 ×4 = 72

49. Correct Option (a)
Exp:
Relative speed of the thief and policeman
= (13 − 12) km/hr = 1 km/hr
Distance covered in 6 minutes = (1/60) x
6 km = 1/10 km = 100 m
Therefore, Distance between the thief and policeman = (300 − 100) m = 200 m.

50. Correct Option (a)
Exp:
Total time taken by the man to travel from A to D = 16 hr and total distance travelled = 36 km.
The time that he would have taken had he not rested in between will be (16 - x - 2x) = (16 - 3x).
But this time should be equal to the addition of the times that he takes to travel individual segments. This is given as :

$$\frac{12}{x} + \frac{12}{2x} + \frac{12}{4x} = \frac{84}{4x} = \frac{21}{x}.$$ Therefore,

$$\frac{21}{x} = (16 - 3x).$$ So we get the equation

$3x^2 - 16x + 21 = 0.$ Solving this equation,

we get $x = 3$ or $x = \frac{7}{3}$. This should be

the time for which he rested at B.

51. Correct Option (a)
Exp:
The triangle is,

52. Correct Option (a)
Exp:
Let the four-digit number be abcd.
a + b = c + d ... (i)
b + d = 2(a + c) ... (ii)
a + d = c ... (iii)
From (i) and (iii), b = 2d
From (i) and (ii), 3b = 4c + d
$\Rightarrow$ 3(2d) = 4c + d
$\Rightarrow$ 5d = 4c

$$\Rightarrow c = \frac{5}{4}d$$

Now d can be 4 or 8.
But if d = 8, then c = 10 not possible.
So d = 4 which gives c = 5.

53. Correct Option (a)
Exp:
$\Rightarrow$ Total unit of work = LCM of 25 and 75 = 75
$\Rightarrow$ Efficiency of A = [75 / 25] = 3 units per day
$\Rightarrow$ Efficiency of B = [75 / 75] = 1 unit per day

$\Rightarrow$ (A + B)'s 10 days work = (3 + 1) × 10 = 40
Remaining work = 75 - 40 = 35 units
$\Rightarrow$ Let the efficiency of C = X
so, (3 + X) × 7 = 35
X = 2 units per day
So, C can alone do the work in =

$$\frac{75}{2} = 37\frac{1}{2} \text{ days}$$

54. Correct Option (b)
Exp:
There is no information in the passage to support (a). Option (b) is the right answer as the second paragraph states that "there was no more ardent a protagonist of the revolution... might not happen in his lifetime. But it did happen a month later." Option (c) is too broad and the author in no way tries to compare the two revolutions. (d) is incorrect because the author does not mention or imply that revolutions happen spontaneously.

55. Correct Option (d)
Exp: The author opines that failing to predict is 'Not as unusual as one might think'. He justifies Arthur Young's not realizing that a great revolution was coming by giving the example of Lenin, the greatest protagonist of revolution in Russia. Option (a) is factually correct but not relevant to the question. Options (b) & (c) are factually incorrect.

56. Correct Option (d)
Exp: Options (a) & (b) can be inferred from Para 1 as author mentions "an intelligent observer of the French scene the coming of the revolution despite a variety of straws in the wind" and "While he saw a number of things that were wrong with the country, he certainly did not realize that a great revolution was coming". Hence, option (d) is the correct choice.

57. Correct Option (c)
Exp: The author starts the passage by discussing how it is not always possible to predict a revolution. But then the passage

moves on and discusses what a revolution really is and what are the conditions necessary for calling any event a 'revolution'. The first two paragraphs cease to become an introduction to the main idea. The main idea is expressed in the third paragraph.

58. Correct Option (a)
Exp: G lives on the bottommost floor.

59. Correct Option (a)
Exp: Three persons are living above D.

60. Correct Option (b)
Exp:
F lives between E and H.

61. Correct Option (a)
Exp:
The pattern is,
14 - 3 =11, $(11)3 = 1331$
9 - 4 = 5, $(5)3 = 125$
26 - 15 = 13, $(13)3 = 2197$
9 - 3 = 6, $(6)3 = 216$

62. Correct Option: (a)
Exp: Let Sum deposited = 100%
Interest generated in post office
= 12 × 4 = 48%
Interest generated in Bank
= 5 × 15 = 75%
Difference in interest
= (15 × 5)% − (12 × 4)% = 1350
27% = 1350
∴ 100% = 5000 Rs.

63. Correct Option (a)
Exp :
Let length of train = x m.
Then, the train covers x metres in 8 seconds and (x + 180) metres in 20 seconds.
$$\frac{180}{20} \quad \frac{x}{8}$$
$+$
$=$
$\Rightarrow 1440 + 8x = 20x$
$\Rightarrow 12x = 1440$
$\Rightarrow x = 120$ m

$$\text{Speed of train} = \frac{120}{8} \times \frac{18}{5} = 54 \text{ km/h.}$$

64. Correct Option (b)
Exp :
Temprature of (Mon. + Tue. + Wed.)
= 60 × 3 =180º C
Temperature of (Tue. + Wed. + Thu.)
= 65 × 3 = 195º C
Temperature of (Thu. – Mon)
= 195 – 180 = 15º C
Temperature of Monday = 62 – 15 = 47ºC

65. Correct Option (c)
Exp:
Let no. of passed students = 100 units
No. of students passed in 1st year
= 20% of 100 = 20 units
Remaining students = 100 − 20 = 80
No. of students passed in 2nd year
= 20% of 80 = 16 units
Now Remaining students = 80 − 16
= 64 units
Given , 64 units = 1600
100 units = 2500
So, No. of passed students = 2500

66. Correct Option (c)
Exp:
Let coins are in the ratio x : 2x : 3x
According to the question,
50p × x + 25p × 2x + 150p × 3x
= 6600 × 100p
550px = 660000p
x =1200
Hence, No. of 25p coins = 2 × 1200 = 2400

67. Correct Option (d)
Exp:
Both of the conclusions do not follow the given statement.

68. Correct Option (c)
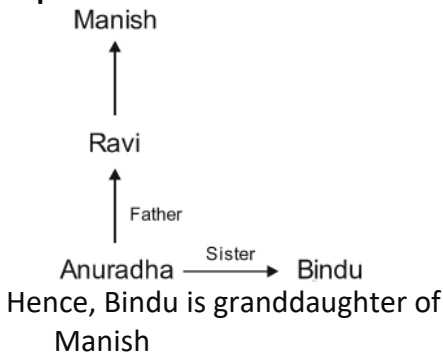**Exp:**
His new rank from top = 21st
Now, Total students = 35 + 2 = 37
His rank from bottom = 37 – 21 +1
= 17th

69. Correct Option (d)

Exp:

Manish
↑
Ravi
↑ Father
Anuradha ──Sister──→ Bindu

Hence, Bindu is granddaughter of Manish

70. Correct Option (d)

Exp: This passage is primarily concerned with the possibility of life on Mars. The paragraph discuss various discoveries that have been made over the past several centuries. The passage concludes that recent findings substantiate claims that there was once life on Mars.

However, scientists are still not certain. In determining the purpose or man idea of the passage, it is important to avoid extreme words and to be able to depend on every word.

This passage does not set out to disprove that theory that there is lie on mars. It is also too extreme to suggest that this is a widely accepted theory. So, statement 1 can be ruled out. Statement 2 is tempting because it is relatively neutral. However, the passage does not seek to initiate a debate, it is more concerned with documenting findings that pertains to life on Mars.

71. Correct Option (a)

Exp: The passage mentions wind erosion and carbon dioxide oceans, but the author states that these are other possible Exps for certain geological landforms on Mars. Wind erosion and carbon dioxide oceans are possible cause of the geological landforms rather than discoveries. So, the correct answer is option (a).

72. Correct Option (c)

Exp: If we read the third sentence of the passage 'by the mid 19th century, scientists discovered other similarities to Earth, including the length of day and axial till', we notice that polar ice caps are introduced as an example of the similarity of Mars to Earth. Thus, the correct answer is option (c).

73. Correct Option (b)

Exp: It is clearly mentioned in the para that mars, unlike Earth, no longer possessed a substantial global magnetic field, allowing celestial radiation to reach the planet's surface and solar wind to eliminate much of Mars atmosphere over the course of several billion years.

74. Correct Option (a)

Exp:
'7' represents the women doctors who are not employed.

75. Correct Option (d)

Exp: It is given that A, B, C, D, E, F and G are sitting in row in that order from left to right A B C D E F G.
Given the person who wears red coloured shirt sits to the right of D but is not F and G wears pink coloured shirt. Hence, E wears red coloured shirt. Given C wears blue coloured shirt and the person who wears green coloured shirt sits to the left of C. Hence, either A or B wears green coloured shirt. If A wears black, then B wears green coloured shirt.
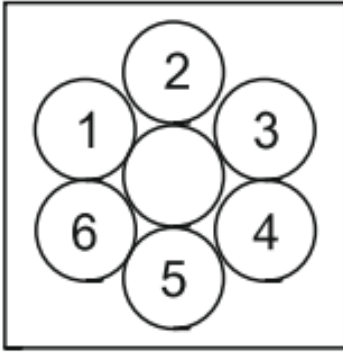
∴ The distribution is as shown below

A	B	C	D	E	F	G
Black	Green	Blue	Yellow	Red	Violet	Pink

Hence, option (d) is correct.

76. Correct Option (d)

Exp:
Winner gets 48%, hence loser will get
(92 − 48) or 44%, hence
difference = 48 − 44 = 4%
Given 4% of the total votes = 1100
100% of the total votes = [1100 / 4] x 100
= 27500

77. Correct Option (d)
Exp:

From above figure, it is clear that we can place only six coins where one coin is in the centre as shown in the above diagram.

78. Correct Option (b)
Exp:

Boy C had covered the maximum distance in minimum time. Also, he reached the 100 m mark in the shortest time. So, race was won by C. A was ahead of B upto 70 m and then B overtake A at 70 m. Also, C is overtaking B at 40 m, where by C crosses the boy B. So, Statements 1, 2 and 3 are correct.

Boy B was running faster than C and he covered more distance than C, upto 40 m. So, it is not true that B ran very slowly from the beginning. Hence, the answer is option (b)

79. Correct Option (d)
Exp:

From the given condition of dice, we can say that number 4 is common in both.
Opposite side of number 2 = Number 5
Opposite side of number 1 = Number 6
Opposite side of number 4 = Number 3
Hence, when number 1 is at the top, number 6 will be at the bottom.

80. Correct Option (a)
Exp:
In figure (i), $5 \times 1 = 5$
$2 \times 2 = 4$ (548)
$\quad 4 \times 2 = 8$
In figure (ii), $3 \times 2 = 6$
$\quad 3 \times 3 = 9$

$\quad 2 \times 2 = 4$
(694)

Similarly, in figure (iii) $6 \times 1 = 6$
$\quad 7 \times 1 = 7$ (678)
$\quad 4 \times 2 = 8$