Roll No.
रोल नम्बर


## Booklet Number

पुस्तिका संख्या

## 2002162

## शैक्षिक योग्यता परीक्षा

(कक्षा $\mathbf{X}$ के विद्यार्थियों के लिए)

## SCHOLASTIC ABILITY TEST

(For Students of Class X)

## LANGUAGE TEST ( भाषा-परीक्षा)

Time: $\mathbf{4 5}$ Minutes

## INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you open the question booklet.

1. This test contains 50 Questions in English Language and 50 Questions in Hindi Language. The candidate has to attempt this test only in one Language i.e. either in English or in Hindi.
2. Mark the medium of test opted by you very carefully on the answer sheet as per instructions given on the answer sheet.
3. Answers are to be given on a separate answer sheet.
4. Write your eight-digit Roll Number as allotted to you in the admission card very clearly on the testbooklet and darken the appropriate circles on the answer sheet as per instructions given.
5. Write down and darken Booklet Number in the appropriate circles on the answer sheet as per instructions given.
6. Please follow the instructions given on the answer sheet for marking the answers.
7. Since the time allotted for this question paper is very limited you should make the best use of it by not spending too much time on any one question.
8. Rough work can be done anywhere in the booklet but not on the answer sheet/loose paper.
9. Every correct answer will be awarded one mark.
10. THERE WILL BE A DEDUCTION OF $1 / 3$ MARKS FOR EVERY WRONG ANSWER AND NO MARKS WILL BE DEDUCTED FOR UNATTEMPTED QUESTIONS.
11. Please return only the answer sheet to the invigilator after the test.
PLEASE TURN OVER THE PAGE AND START YOUR WORK

## समय: 45 मिनट

परीक्षार्थियों के लिए अनुदेश
प्रश्न पुस्तिका खोलने से पहले, निम्न अनुदेशों को ध्यान से पढ़िए।

1. इस प्रश्न-पत्र में 50 प्रश्न अंग्रेजी भाषा के और 50 प्रश्न हिन्दी भाषा के है। विद्यार्थियों को इनमें से केवल एक भाषा के सवालों को करना है या तो अंग्रेजी या हिन्दी।
2. चुने हुए माध्यम को सावधानी से उत्तर-पत्रक पर दिये गए निर्देशानुसार लिखें।
3. उत्तर एक अलग उत्तर-पत्रक में देने हैं।
4. कृपया अपना आठ-अंकीय रोल नंबर, जैसा कि आपके प्रवेश पत्र पर दिया गया है, अनुदेशानुसार प्रश्न-पुस्तिका और उत्तर-पत्रक पर बहुत स्पष्ट रूप से लिखिए और दिए गए उपयुक्त गोलों को काला कीजिए।
5. कृपया उत्तर-पत्रक में उपयुक्त खाने में निर्देशानुसार पुस्तिका संख्या लिखिए।
6. कृपया उत्तर चिन्हित करने के लिए उत्तर-पत्रक पर दिये गये निदेशों को ध्यान से समझ कर उनकी अनुपालना कीजिये।
7. इस प्रश्न पत्र के लिए निर्धारित समय बहुत सीमित है, इसलिए इसका अधिकतम उपयोग कीजिए और किसी प्रश्न पर बहुत समय न लगाइए।
8. रफ कार्य पुस्तिका में कहीं भी किया जा सकता है, किन्तु उत्तर-पत्रक/अलग कागज पर नहीं।
9. प्रत्येक सही उत्तर का एक अंक प्रदान किया जाएगा।
10. प्रत्येक गलत उत्तर के लिए $1 / 3$ अंक काटा जाएगा और किसी प्रश्न का उत्तर न देने पर उसके लिए कोई अंक नहीं काटा जाएगा।
11. कृपया परीक्षा के पश्चात केवल उत्तर-पत्रक ही निरीक्षक को वापिस कर दीजिए।
कृपया पृष्ठ पलटिए और अपना कार्य आरम्भ कीजिए

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S/14 NRS/2015-SAT-LANG-1A
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## NTSE STAGE II SCHOLASTIC APTITUDE TEST (SAT)-2015

1. A segment of DNA contains 1200 nucleotides, of which 200 have adenine base. How many cytosine bases are present inthis segment of DNA ?
2. 100
3. 200
4. 400
5. 800
6. You are observing a nonchlorophyllous, eukaryotic organism with chitinous cell wall under a microscope. You shall describe the organism as a
7. fungus.
8. alga
9. protozoas
10. bacterium
11. Match the items given in Column A and Column B, and identify the correct alternative listed below.

|  | Column A |
| :--- | :--- |
| (a) Flying fish | (i) Draco |
| (b) Flying lizare (ii) Echidna <br> (c) Egg laying (iii) Exocoetus <br> mammal (iv) Struthio <br> (d) Flightless bird  |  |

(A) (a)-(i), (b)(iii), (c)-(ii), (d) - (iv)
(B) (a) - (iii), (b) - (i), (c) -(ii), (d) - (iv)
(C) (a) - (iii), (b) -(i), (c)-(iv) (d) -(ii)
(D) (a) -(i), (b)-(iii), (c) -(iv), (d)-(ii)
4. Which one of the following statements about cell organelles and their funciton is correct ?

1. Mitochondria are associated with anaerobic respiration.
2. Smooth endoplasmic reticulum is involved in protein synthesis.
3. Lysosomes are important in membrane biogenesis.
4. Golgi bodies are involved in packaging and dispatching of materials.
5. A leguminous plant grown in an autoclaved, sterilized soild fails to produce root nodules because
6. autoclaved soil is not good for root growth.
7. autoclaved soil is devoid of bacteria .
8. autoclaving reduces $\mathrm{N}_{2}$ content of soil.
9. plants cannot form root hairs in such a soil.
10. The causative agent of the disease 'sleeping sickness' in human beings is an
11. intracellular parasite found in RBC. 2. extracellular parasite found in blood plasma
12. intracellular parasite found in WBC.
13. extracellular parasite found on the surface of platelets.
14. The gene for hemophilia is present on $X$ chromosome. If a hemophilic male marries a normal female, the probability of their son being hemophilic is
15. nil
16. $25 \%$
17. $50 \%$
18. $100 \%$
19. Abundance of coliform bacteria in a water body is indicative of pollution from
20. petroleum refinery.
21. metal smelter
22. fertilizer factory
23. domestic sewage.
24. Prolonged exposure to the fumes released by incomplete combustion of coal may cause death of a human because of
25. inhalation of unburnt carbon particles.
26. continuous exposure to high temperature.
27. increased level of carbon monoxide.
28. increased level of carbon dioxide.
29. The phenomenon of normla breathing in a human being comprises
30. an active inspiratory and a passive expiratory phase
31. a passive inspiratory and an active expiratory phase.
32. both active inspiratory and expiratory phases.
33. both passive inspiratory and expiratory phases.
34. Which one of the following statements is true with respect to photosynthesis ?
35. Oxygen evolved during photosynthesis comes from $\mathrm{CO}_{2}$
36. Chlorophyll a is the only photosynthetic pigment in plants.
3.Photosynthesis occurs in stem of some plants.
37. Photosynthesis does not occur in red light.

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12．The girth of stem increases due to the activity of
1．lateral meristem．
2．apical meristem．
3．intercalary meristem
4．apical and intercalary meristem．

13．Which one of the following represents the correct sequence of reflex action ？
1．Receptor $\rightarrow$ sensory nerve $\rightarrow$ motor nerve $\rightarrow$ spinal cord $\rightarrow$ muscle
2．Receptor $\rightarrow$ motor nerve $\rightarrow$ spinal cord $\rightarrow$ sensory nerve $\rightarrow$ muscle
3．Receptor $\rightarrow$ sensory nerve $\rightarrow$ spinal cord $\rightarrow$ muscle $\rightarrow$ motor nerve
4．Receptor $\rightarrow$ sensory nerve $\rightarrow$ spinal cord $\rightarrow$ motor nerve $\rightarrow$ muscle
14．In human female，immature eggs are for the first time seen in ovary
1．at puberty
2．before birth，at the fetus stage
3．during the first menstrual cycle
4．after the first year birth．

15．What happens when a fixed amount of oxygen gas is taken in a cylinder and compressed at constant temperature？
（i）Number of collisions of oxygen molecules at per unit area of the wall of the cylinder increases．
（ii）Oxygen $\left(\mathrm{O}_{2}\right)$ gets converted into ozone $\left(\mathrm{O}_{3}\right)$ ．
（iii）Kinetic energy of the molecules of oxygen gas increases．
1．（i）and（iii）
2．（ii）and（iii）
3．（iii）only
4．（i）only

16．The solubility of a substance S in water is $28.6 \%$（mass by volume）at $50^{\circ} \mathrm{C}$ ．When 50 mL of its saturated solution at $50^{\circ} \mathrm{C}$ is cooled to $40^{\circ} \mathrm{C}, 2.4 \mathrm{~g}$ of solid S separates out．The solubility of S in water at $40^{\circ} \mathrm{C}$ （mass by volume）is ：
1． 2.4 \％
2． $11.9 \%$
3． $26.2 \%$
4． $23.8 \%$

17．What mass of $\mathrm{CO}_{2}$ will be formed when 6 g of carbon is burnt in 32 g of oxygen ？
1.38 g
2． 12 g
3． 26 g
4． 22 g

18．The law of conservation of mass is valid for which of the following ？
a．Reactions involving oxidation
b．Nuclear reactions．
c．Endothermic reactions
1．（a）and（c）
2．（a）and（b）
3．（b）and（c）
4．（b）only

19．How many sub－atomic particles are present in an $\alpha$－particle used in Rutherford＇s scattering experiment？

No．of protons No．of Neutrons No．of Electrons

| 1. | 4 | 0 | 0 |
| :--- | :--- | :--- | :--- |
| 2. | 2 | 0 | 2 |
| 3. | 2 | 2 | 0 |
| 4. | 2 | 2 | 1 |

20．A certain sample of element $Z$ contains $60 \%$ of ${ }^{69} \mathrm{Z}$ and $40 \%$ of ${ }^{71} \mathrm{Z}$ ．What is the relative atomic mass of element $Z$ in this sample？
1． 69.2
2． 69.8
3． 70.0
4． 70.2

21．Compound $A$ on strong heating in a boiling tube gives off reddish brown fumes and a yellow residue．When the aqueous solution of $A$ is treated with a few drops of sodium hydroxide solution，a white precipitate appeared in the compound A．Identify the cation and anion present in the compound A．
1．Copper（II）and nitrate 2．Lead（II）and chloride 3．Zinc and sulphate 4．Lead（II）and nitrate
22．A substance $A$ reacts with another substance $B$ to produce the product $C$ and a gas $D$ ．If a mixture of the gas $D$ and ammonia is passed through an aqueous solution of $C$ ，baking soda is formed．The substances $A$ and $B$ are ：
1． HCl and NaOH
2． HCl and $\mathrm{Na}_{2} \mathrm{CO}_{3}$
3． Na and HCl
4． $\mathrm{Na}_{2} \mathrm{CO}_{3}$ and $\mathrm{H}_{2} \mathrm{O}$

23．A metal occurs in nature as its ore $X$ which on heating in air converts to $Y . Y$ reacts with unreacted $X$ to give the metal．The metal is ：
（1） Hg
（2） Cu
（3） Zn
（4） Fe

24．Assertion（A）：Nitrate ores are rarely available．
Reason（R）：Bond dissociationg energy of nitrogen is very high．
1．Both $A$ and $R$ are true and $R$ is the correct explanation of $A$ ．
2．Both $A$ and $R$ are correct but $R$ is not the correct explanation of $A$ ．
3．$A$ is correct and $R$ is false
4．Both $A$ and $R$ are False
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25. The number of structural isomers of the compound having molecular formula $\mathrm{C}_{4} \mathrm{H}_{9} \mathrm{Br}$ is :

1. 3
2. 5
3. 4
4. 2
5. The total number of electrons and the number of electrons involved in the formation of various bonds present in one molecule of propanal $\left(\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{CHO}\right)$ are respectively :
6. 32 and 20
7. 24 and 20
8. 24 and 18
9. 32 and 18
10. Consider following as a portion of the periodic table from Group No. 13 to 17. Which of the following statments is are true about the elements shown in it?
I. V, W, X and Y are less electropositive than X .
II. $\quad \mathrm{V}, \mathrm{W}, \mathrm{X}$ and Y are more electronegative than Z .

III Atomic size of $Y$ is greater than that of $W$.
IV Atomic size of $W$ is smaller than that of $X$.

|  |  |  | $\mathbf{V}$ | $\mathbf{Z}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{W}$ |  |  |  | $\mathbf{Y}$ |
|  |  |  |  |  |
| $\mathbf{X}$ |  |  |  |  |

(1) I, II and III
(2) II and III
(3) I and IV
(4) III and IV
28. A man running with a uniform speed 'u' on a straight road observes a stationary bus at a distance 'd' ahead of him. At thta instant, the bus starts with an acceleration 'a'. THe condition that he would be able to catch the bus is
(1) $\mathrm{d} \leq \frac{\mathrm{u}^{2}}{\mathrm{a}}$
(2) $d \leq \frac{u^{2}}{2 a}$
(3) $d \leq \frac{u^{2}}{3 a}$
(4) $d \leq \frac{u^{2}}{4 a}$
29. A ball is thrown vertically upwards with a given velcity ' $u$ ' such tht it rises for $T$ seconds ( $T>1$ ), What is the distance traversed by the ball during the last one second of ascent (in meters)? (Acceleration due to gravity is $\mathrm{g} \mathrm{m} / \mathrm{s}^{2}$.)
(1) $\frac{1}{2} \mathrm{gT}^{2}$
(2) $v \mathrm{~T}+\frac{1}{2} \mathrm{~g}\left[\mathrm{~T}^{2}-(\mathrm{T}-1)^{2}\right]$
(3) $\frac{g}{2}$
(4) $\frac{1}{2} \mathrm{~g}\left[\mathrm{~T}^{2}-(\mathrm{T}-1)^{2}\right]$
30. The radius of a planet $A$ is twice that of planet $B$. The average denstity of the material of planet $A$ is thrice that of planet $B$. The ratio between the values of acceleration due to gravity on the surface of planet $A$ and that on the surface of planet $B$ is
(1) $\frac{2}{3}$
(2) $\frac{3}{2}$
(3) $\frac{4}{3}$
(4) 6

31. A small spherical ball of mass ' $m$ ' is used as the bob of a pendulum. The work done by the force of tension on its displacemetn is $W_{1}$. The same ball is made to roll on a frictionless table. The work done by the force of normal reaction is $W_{2}$. Again the same ball is given a positive charge ' $g$ ' and made to travel with a velocity $v$ in a magnetic field $B$. The work done by the force experienced by the charged ball is $W_{3}$. If the displacements in each case are the same, we have
(1) $W_{1}<W_{2}<W_{3}$
(2) $W_{1}>W_{2}>W_{3}$
(3) $W_{1}=W_{2}=W_{3}$
(4) that $W_{1}, W_{2}, W_{3}$ cannot be related by any equation

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32. The variation in the kinetic energy (K.E.) adn the potential energy (P.E.) of a particle moving along the $x$ axis are shown in the graphs below. Which one of the following graphs violates the law of conservation of energy?
(1)

(2)

(3)

(4)

33. The disc of a siren containing 60 holes rotates at a constant speed of 360 rotations per minute. The emitted sound is in unison with a tuning fork of frequency
(1) 270 Hz
(2) 360 Hz
(3) 480 Hz
(4) 540 Hz
34. A tuning fork is excited by striking it with a padded hammer. What would be the nature of the vibrations executed by the prongs as well as the stem of the fork respectively? (The reference directin is that of the propagation of the sound wave.)
(1) Both vibrate longitudinally
(2) Both vibrate transversely
(3) The prong vibrate longitudinally whereas the stem vibrates transversely
(4) The prong vibrate transversely whereas the stem vibrates longitudinally
35. Find the reading of the ammeter in the circuit given below.

R/2
(1) $\frac{V}{2 R}$
(2) $\frac{3 V}{4 R}$
(3) $\frac{2 V}{7 R}$
(4) $\frac{11 \mathrm{~V}}{\mathrm{R}}$
36. Three bulbs with individual power ratings of $12 \mathrm{~W}, 2 \mathrm{~W}$ and 6 W respectively are connected as per the circuit diagram below, Find the amount of heat dissipated by each in 10 seconds.

(1) $8 \mathrm{~J}, 1.33 \mathrm{~J}, 4 \mathrm{~J}$
(2) $120 \mathrm{~J}, 20 \mathrm{~J}, 60 \mathrm{~J}$
(3) $10 \mathrm{~J}, 0.277 \mathrm{~J}, 2.5 \mathrm{~J}$
(4) $12 \mathrm{~J}, 1.66 \mathrm{~J}, 5 \mathrm{~J}$
37. Which of the following can produce a magnetic field ?
(1) Electric charges at rest
(2) Electric charges in motion
(3) Only by permanent magnets
(4) Electric charges whether at rest or in motion
38. A wire is lying horizontally in the north-south direction and there is a horizontal magnetic field pointing towards the east. Some positive charges in the wire move north and an equal number of negative charges move south. The direction of force on the wire will be


(3) up, out of the page
(4) west
39. Match the following :

| Phenomenon |  | Reason |  |
| :--- | :--- | :--- | :--- |
| (i) | Rainbow | A. | Scattering of <br> light |
| (ii) | Twinkling of stars | B. | Dispersion of <br> light |
| (iii) | Blue colour of <br> sky | C. | Fluctuation of <br> the refraction <br> index in <br> atmosphere <br> layers |
| (iv) | Advancement of <br> sunrise and delay <br> of sunset | D. | Refraction of <br> light |

(1) (i)-B, (ii)-D, (iii)-A, (iv)-C
(2) (i)-B, (ii)-C, (iii)-A, (iv)-D
(3) (i)-B, (ii)-A, (iii)-C, (iv) - D
(4) (i) - D, (ii)-B, (iii)-A, (iv)-C
40. A person is suffering from both near sightedness and far sightedness. His spectacles would be made of
(1) two convex lenses with the upper lens having a larger focal length than the lower lens.
(2) two concave lenses with the upper lens having a smaller focal length than the lower lens.
(3) a concave lens as the upper lens and a convex lens as the lower lens
(4) a convex lens as the upper lens and a concave lens as the lower lens
41. LCM of two numbers $x$ and $y$ is 720 and the LCM of numbers $12 x$ and $5 y$ is also 720 . The number $y$ is.

1. 180
2. 144
3. 120
4. 90
5. When a natural number $x$ is divided by 5 , the remainder is 2 . When a natural number y is divided by 5 , the remainder is 4 , The remainder is $z$ when $x+y$ is divided by 5 . The value of $\frac{2 z-5}{3}$ is
6. -1
7. 1
$-\square$
8. -2
9. 2
10. If the zeros of the polynomial $64 x^{3}-144 x^{2}+92 x-15$ are in AP, then the difference between the largest and the smallest zeroes of the polynomial is
11. 1
12. $\frac{7}{8}$
13. $\frac{3}{4}$
14. $\frac{1}{2}$
15. $x$ and $y$ are two non-negative numbers such that $2 x+y=10$. The sum of the maximum and minimum values of $(x+y)$ is
1.6
16. 9
17. 10
18. 15
19. The number of integral solution of the equation

$$
7\left(y+\frac{1}{y}\right)-2\left(y^{2}+\frac{1}{y^{2}}\right)=9
$$

1. 0
2. 1
3. 2
4. 3
5. A circle with area $\mathrm{Acm}^{2}$ is contained in the interior of a larger circle with area $(A+B) \mathrm{cm}^{2}$ and the radius of the larger circle is 4 cm . If $A, B, A+B$ are in airthmatic progression, then the diameter (in cm ) of the smaller circle is
6. $\frac{\sqrt{3}}{2}$
7. $\frac{4 \sqrt{3}}{3}$
8. $\frac{8 \sqrt{3}}{3}$
9. $2 \sqrt{3}$
10. Each of sides of a triangle is 8 cm less than the sum of its other two sides. Area of the triangle (in $\mathrm{cm}^{2}$ ) is
11. 8
12. $8 \sqrt{3}$
13. 16
14. $16 \sqrt{3}$
15. If $\operatorname{cosec} x-\cos x=\frac{1}{3}$, where $x \neq 0$, then the value of $\cos ^{2} x-\sin ^{2} x$ is
16. $\frac{16}{25}$
17. $\frac{9}{25}$
18. $\frac{8}{25}$
19. $\frac{7}{25}$
20. A sector with acute central angle $\theta$ is cut from a circle of diameter 14 cm . The area (in $\mathrm{cm}^{2}$ ) of the circle circumscribing the sector is
21. $\frac{22}{7} \sec ^{2} \theta \frac{\theta}{2}$
22. $\frac{77}{2} \sec ^{2} \theta$
23. $\frac{77}{2} \cos ^{2} \theta \frac{\theta}{2}$
24. $\frac{77}{2} \sec ^{2} \frac{\theta}{2}$
25. In the figure $P Q S O$, is a trapezium in which $P Q \| O S, \angle P O S=135^{\circ}$ and $\angle O S Q=90^{\circ}$ points $P, Q$ and $R$ lie on a circle with centre $O$ and radius 12 cm . The area of the shaded part, in $\mathrm{cm}^{2}$, is

26. $61 \frac{2}{7}$
27. $61 \frac{5}{7}$
28. $73 \frac{5}{7}$
29. $73 \frac{2}{7}$
30. A solid sphere is cut into identical pieces by three mutually perpendicular plane passing through its centre. Increase in total surface area of all the pieces with respect to the total surface area of the original sphere is
31. $250 \%$
32. $175 \%$
33. $150 \%$
34. $125 \%$
35. A right circular cylinder has its height equal to two times its radius. It is inscribed in a right circular cone having its diameter equal to 10 cm and height 12 cm , and the axes of both the cylinder and the cone coincide. Then, the volume (in $\mathrm{cm}^{3}$ ) of the cylinder is approximately.
36. 107.5
37. 118.6
38. 127.5
39. 128.7
40. In the figure, ABCD is a square of side 1 dm and $\angle \mathrm{PAQ}=45^{\circ}$. The perimeter (in dm ) of the triangle PQC is

41. 2
42. $1+\sqrt{2}$
43. $2 \sqrt{2}-1$
44. $1+\sqrt{3}$
45. In the figure, $A B C$ is a triangle in which $A D$ bisects $\angle A, A C=B C, \angle B=72^{\circ}$ and $C D=1 \mathrm{~cm}$, Length of $B D$ (in cm) is

46. 1
47. $\frac{1}{2}$
48. $\frac{\sqrt{5}-1}{2}$
49. $\frac{\sqrt{3}+1}{2}$
50. In the figure, $B C$ is a chord of the circle with centre $O$ and $A$ is a point on the minor are $B C$. Then $\angle \mathrm{BAC}-\angle \mathrm{OBC}$ is equal to

51. $30^{\circ}$
52. $60^{\circ}$
53. $80^{\circ}$
54. $90^{\circ}$
55. In the figure, $\triangle \mathrm{APB}$ is formed by three tangents to the circle with centre O . If $\angle \mathrm{APB}=40^{\circ}$, then the measure of $\angle \mathrm{BOA}$ is

56. $50^{\circ}$
57. $55^{\circ}$
58. $60^{\circ}$
59. $70^{\circ}$
60. $(5,10),(-15,15)$ and $(5,5)$ are the coordinates of vertices $A, B$ and $C$ respectively of $\triangle A B C$ and $P$ is a point on median $A D$ such that $A P: P D=2: 3$. Ratio of the areas of the triangle $P B C$ and $A B C$
61. $2: 3$
62. $3: 4$
63. $3: 5$
64. $4: 5$
65. $\quad P$ is a point on the graph of $y=5 x+3$. The coordinates of a point $Q$ are $(3,-2)$. If $M$ is the mid point of $P Q$, then $M$ must lie on the line respresented by
66. $y=5 x+1$
67. $y=5 x-7$
68. $y=\frac{5}{2} x-\frac{7}{2}$
69. $y=\frac{5}{2} x+\frac{1}{2}$
70. Three - digit number formed by using digits $0,1,2$ and 5 (without repetition) are written on different on each slip, and put in a bowl. One slip is drawn at random from the bowl. The probability that the slip bears a number divisible by 5 is
71. $\frac{5}{9}$
72. $\frac{4}{9}$
73. $\frac{2}{3}$
74. $\frac{1}{3}$
75. The mean of fifteen different natural numbers is 13 . The maximum value for the second largest of these numbers is
76. 46
77. 51
78. 52
79. 53
80. Assertion (A) : During eighteenth century France witnessed the emergence of a middle class.

Reason (R): The emergence of the middle class happend on account of royal patrnage.

1. $A$ is true, $R$ is false.
2. $A$ is false, $R$ is true.
3. Both $A$ and $R$ are true but $R$ is not the correct explanation of $A$.
4. Both $A$ and $R$ are true and $R$ is the correct explanation of $A$.
5. Assertion (A) : The lives of pastoralists in , India underwent dramatic changes under colonial rule.

Reason (R): In most areas the lands regularly used by pastoralists for grazing were taken over by the colonial state and given to select individuals for cultivation.

1. $A$ is true, $R$ is false.
2. $A$ is false, $R$ is true.
3. Both $A$ and $R$ are true but $R$ is not the correct explanation of $A$.
4. Both $A$ and $R$ are true and $R$ is the correct explanation of $A$.
5. Assertion (A) : By the early twentieth century, America became the biggest supplier of wheat to Europe.
Reason (R): The expansion of the railways during the period greatly facilitated the transport of grain.
6. $A$ is true, $R$ is false.
7. $A$ is false, $R$ is true.
8. Both $A$ and $R$ are true but $R$ is not the correct explanation of $A$.
9. Both $A$ and $R$ are true and $R$ is the correct explanation of $A$.
10. Match the following table and choose the correct response from the options given thereafter.

Column-I Column-II
A. 1910 I. Establishment of Tonkin Free School.
B. 1930 II. Formation of French IndooChina.
C. 1907 III. Completion of the transChina rail network.
D. 1887 IV. Formation of the Vietnamese Communist Party.

1. A-III, B-IV, C-I, D-II
2. A-IV, B-III, C-II, D-I
3. A-III, B-I, C-IV, D-H
4. A-IV, B-I, Coll, D-III
5. Arrange the following Indian novels in accordance with their year of writing/publication
a. Indulekha
b. Rajasekhara Caritramu
c. Yamuna Paryatan
d. Pariksha-Guru
6. c, b. d, a
7. a, d. b, c
8. c, d. b, a
9. a, b. d, c

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66. The main tenets of April Theses during the Bolshevik Revolution were:

1. Closing the war, shifting of banks, land pooling by 'government.
2. Formation of labour government, bank nationalisation and land distribution.
3. Communist government, land fragmentation and merger of banks.
4. Ending the war, bank nationalisation and land transfer.
5. Mahatma Gandhi changed his dressing style from Western to Indian over a period of time. Match those changes as given in Column-I and Column-II and choose the correct response from the options given thereafter.

| Column-I | Column-II |
| :--- | :--- |
| A. Suit | I. 1915 |
| B. Lungi-Kurta | II. 1890 |
| C. Peasant Dress | III. 1921 |
| D. Short Dhoti | IV. 1913 |
| 1. A-II, B-IV, C-I, D-III |  |
| 2. A-II, B-I, C-IV, D-III |  |
| 3. A-III, B-IV, C-I, D-II |  |
| 4. A-IV, B-III, C-I, D-II |  |

68. In' late $19^{\text {th }}$ and early $20^{\text {th }}$ centuries, nationalism captured the imagination of the Indian people through a variety of cultural processes. Which of the following was not a part of those processes?
69. Rewriting history to show India's continuous progress from the ancient to the modem times.
70. Creation of different images of Bharat Mata.
71. Recording, collection and publication of folk tales and folk songs.
72. Designing flags as inspiring symbols of nationalism.
73. Choose the correct response from the given options.

Nomadic people move over long distances because

1. By temperament they do not like to settle down in anyone place.
2. They constantly look for good pasture land for their cattle.
3. They follow a life style which is very different from the settled communities.
4. Eonomically they are too poor to own land.
5. Choose the correct response from the given options.

In 19th century England grain production grew as quickly as the population because

1. Farmers used simple agricultural technology to greater effect.
2. Radical innovations were made in agricultural technology.
3. Larger and larger areas were brought under cultivation.
4. Increasing number of poor people found work as agricultural labourers.
5. Choose the correct response from the given options.

By the late 19th century Indians began searching for a national dress because they wanted to

1. Show that in terms of dress they were not inferior to the British
2. Get rid of the blame of blindly aping the west
3. Define the cultural identity of the nation.
4. Culturally synthesize the traditions of the East and the West.
5. Choose the correct response from the given options.

The unification of Germany in 1871, for a change, demonstrated

1. The triumph of the democratic aspirations of the German middle-class.
2. The fulfilment of the liberal initiative to nation-building.
3. The power of the common people, das volk.
4. The dominance of the state power and conservatives' success in mobilising nationalist sentiments.
5. Choose the correct response from the given options.

The formation of the 'United Kingdom of Great Britain' in 1707 meant, in effect,

1. Equal representation of all the British Isles in the British Parliament.
2. Recognition to the ethnic identities of the Welsh, the Scot and the Irish.
3. The cessation of conflicts between the Catholics and the Protestants.
4. The dominance of England on Scotland through the English supremacy in Parliament.

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74. Choose the correct response from the given options.

Many within the Congress were initially opposed to the idea of non-cooperation because

1. They did not think that British rule in India would collapse if Indians refused to cooperate.
2. They were not yet sure of Gandhiji's ability to successfully lead a nationwide movement
3. They were reluctant to boycott the council election scheduled for November 1920.
4. They did not agree with Gandhiji's proposal to carry the movement forward in stages.
5. Choose the correct response from the given options.

The main reason why the Society of Revolutionary and Republican Women was set up during the
French Revolution was because

1. Women wanted laws that would help improve their lives.
2. Women wanted the same political rights as men.
3. Women wanted their interests to be properly represented in the new government.
4. Women wanted access to education, training for jobs, and wages on par with men.
5. Assertion (A) : The El Nino, a cold ocean current flows along the coast of Peru during Christmas.

Reason (R) : The presence of the IE Nino leads to an increase in sea - surfac temperatures and
weakening of the trade winds in the regions.

1. Bothe $A$ and $R$ are true and $R$ explains $A$.
2. Both $A$ and $R$ are true but $R$ does not explain $A$.
3. $A$ is true and $R$ is false.
4. $A$ is flase and $R$ is true.
5. Asscrtion (A): Air temperature decreases from the equator toward the poles.

Reason (R) : A one move from the sea level to higher altitude, the atmosphere become less dense and temperature decreases.

1. Both $A$ and $R$ are true and $R$ explains $A$.
2. Both $A$ and $R$ are true but $R$ doe not explain $A$.
3. $A$ is true and $R$ is false.
4. $A$ is false and $R$ is true.
5. Match List-I (local name of shifting cultivation) with List-II (States/Region) and elect the correct answer using the code given below:
Lit-I (local name of shifting cultivation) List-II (States/Region)
A. Dahiya
I. Jharkhand
B. Kumari
II. Madhya Pradesh
C. Bringa
III. Odisha
D. Kuruwa
IV. Western Ghats
6. A-III. B-IV, C-II, D-I
7. A-I. B-III, C-IV, D-1I
8. A-I, B-IV, C-III. D-II
9. A-II. B-IV, C-III, D-I
10. Assertion (A): Most nuclear power stations in India have been constructed near sources of water.

Reason (R): Nuclear power stations require a great quantity of water for cooling purposes.

1. Both $A$ and $R$ are true and $R$ explains $A$.
2. Both $A$ and $R$ are true but $R$ does not explain $A$.
3. $A$ is true and $R$ is false.
4. $A$ is false and $R$ is true.
5. Assertion $(A)$ : Peninsula rocks contain many reserves of coal, metallic minerals, mica and many other non-metallic minerals.
Reason (R) : Sedimentary rocks on the western and eastern flanks of the peninsula, in Gujarat and Assam have most ot the famous minerals.
6. Both $A$ and $R$ are ture and $R$ explains $A$.
7. Both $A$ and $R$ are true but $R$ does not explain $A$.
8. $A$ is true and $R$ is false
9. $A$ is false and $R$ is true
10. Which one of the following states has common boundiers with the least number of countries.
11. Uttarakhand
12. West Bengal
13. Arunachal Pradesh
14. Sikkim
15. Match List-1(Rivers) with List -II (National Waterways) and select the correct answer using the code given below:

| List-I (Rivers) |  | List-II (National <br> Waterways) |  |
| :--- | :--- | :--- | :--- |
| A. | Ganga | I. | National <br> Waterway No.4 |
| B. | Brahmaputra | II. | National <br> Waterway No.1 |
| C. | Godavari and <br> Krishna | III. | National <br> Waterway No.5 |
| D. | Mahandi and <br> Brahmani | IV. | National <br> Waterway No.2 |

1. A-I, B-II, C-III, D-IV
2. A-II, B-III, C-IV, D-I
3. A-IV, B-III, C-II, D-I
4. A-II, B-IV, C-I, D-III
5. Match List-I (Rivers) with List-II B
(Tributaries) and select the correct answer using the codes given below

List-I (Rivers)
List-II (Tributaric )
A. Ganga
I. Lohit
B. Ganga
C. Krishna
D. Brahamputra
II. Koyana
III. Wainganga
IV. Son

1. A-II, B-III, C-IV, D-I
2. A-II, B-I, C-III, D-IV
3. A-III, B-IV, C-II, D-I
4. A-I, B-III, C-IV, D-II
5. Arrange these hill ranges from north to south direction
I. Zaskar Range
II. Shiwalik Range
III. Karakoram Range
IV. Ladakh Range
I. III. IV. I. II
6. III. I. IV. II
7. I. II. III. IV
8. IV. III. I. II
9. Match List-I (Rivers) with List-II Origin and select the correct answer using the codes given below

List-I (Rivers)
A. Godavari
B. Krishna
C. Narmada
D. Vaigai

1. A-IV, B-III, C-I, D-II
2. A-I, B-II, C-IV, D-III

List-II (Origin)
I. Cardamom hills
II. Amarkantak Hills
III. Nasik Hills
IV. Mahabaleshwar
2. A-III, B-IV, C-II, D-I
4. A-II, B-I, C-III, D-IV
86. Assertion (A): In India, most migrations have been from rural to urban areas

Reason (R): . The urban areas offer greater employment opportunities and better living condistion.

1. Both and $R$ are true and $R$ explains $A$.
2. Both $A$ and $R$ are true but $R$ does not explain $A$.
3. $A$ is true and $R$ is false.
4. $A$ is false and. $R$ is true.
5. Arrange these hills from west to east direction.
A. Khasi hills
B. Garo hills
C. Naga hills
D. Jaintia Range
I. C, A, B, D
6. $D, B, A, C$
7. $A, B, C, D$
8. B, A, D, C
9. Assertion (A): The Earth does not receive an equal amount of solar energy at all latitudes.

Reason (R): As one goes from low altitude to high altitude temperature decreases because atmosphere becomes less dense.

1. Both $A$ and $R$ are true and $R$ explains $A$.
2. Both $A$ and $R$ are true but $R$ does not explain $A$.
3. $A$ is true and $R$ is false.
4. $A$ is false and $R$ is true.
5. Match the vegetation zones in Column-I with the associated mean annual average temperature (in degree Celsius) in Column-II

Column - I
A. Tropical
B. Sub-tropical
C. Temperate
D. Alpine

Column-II
I. $17^{\circ} \mathrm{C}$ to $24^{\circ} \mathrm{C}$
II. Above $24^{\circ} \mathrm{C}$
III. $7^{\circ} \mathrm{C}$ to $17^{\circ} \mathrm{C}$
IV. Below $7^{\circ} \mathrm{C}$

1. A-II, B-I, C-III, D-IV
2. A-II, B-IV, C-III, D-I

## 2. A-II, B-III, C-IV, D-I

4. A-IV, B-II, C-III, D-I
5. Match the given crops with their major producing areas shown on the map of India.

A. Wheat
B. Coffee
C. Rice
D. Tea
6. A-I, B-IV, C-III, D-II
7. A-I, B-II, C-III, D-IV
8. A-III, B-II, C-I, D-IV
9. A-IV, B-III, C-I, D-II
10. Wh ich of the following statement is/are true about federal system?
a. All federations have a similar scheme of distribution of powers.
b. The origins of different federations are dissimilar.
c. Federalism promotes unity at the cost of diversity.
d. Federalism promotes unity in diversity.
11. Only b
12. a and c
13. b and d
14. a. b and c
15. I do not contest elections. but 1 try to influence the political process. I have a specific policy agenda. I have no interest in seeking political power. Who am I ?
16. Bureaucracy
17. Court
18. Pressure group
19. Media
20. Which of the following statement's is/are true?
a. India is among the bottom group of nations in the world when it comes to the representation of women in legislatures.
b. Women in the Arab countries are most active in public life.
c. India has lesser representation of women in legislatures as compared to Sub-Saharan Africa.
d. The share of women in legislative assemblies in India is lower than that of their representation in

Parliament.

1. $a$ and $b$
2. b and c
3. $a, b$ and d
4. a, c and d
5. Which of the following issues has been most successfully addressed by the Indian democracy ?
6. Social inequality
7. Economic inequality
8. Politicla inequality
9. Natural inequality
10. MatchList 1 (Leaders) with List II (Political parties) and select the answer using the codes given below.
List - I
List-II
I. E.M.S. Namboodiripad a. Bahujan Samaj Party
II. Sheikh Abdullah
b. Telugu Desam
III. N.T. Rama Rao
c. Communist Party of India (Marxist)
IV. Kanshi Ram
d. Jammu \& Kashmir National conference
11. I-c, II-d, III-a, IV-b
12. I-b, II-d, III-c, IV-a
13. I-b, II-c, III-a, IV-d
14. I-c, II-d, III-b, IV-a
15. Economic growth is growth in $\qquad$ .
16. value of total output
17. value of total investment
18. value of industrial output
19. value added of all sectors.



Mahatma Gandhi National Rural Employment Guarantee Act aims at providing

1. employment to rural people in government offices.
2. 200 days of work/year in rural areas.
3. 100 days of wage employment in a year to rural households
4. 365 days work in rural areas.

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98．A landless worker in a village takes a kind loasn of tow bags of rice form the village landlord．The condition is that she will repay the loan in two and half bags of rice at the end of one year．The interest paid equals $\qquad$ －
1．the difference between the money value of rice betwen now and at the end of the year．
2．31．25 percent of the original amount of loan．
3． 25 percent of the original amount of loan
4．the difference betwen the rates of interest charged by banks betwen beggining and at the end of the year．

99．Non－marker activity is $\qquad$ ．
1．a state of unemployment．
2．producing for self consumption．
3．selling the products nearby temples．
4．selling the products through the Regulated Market．
100．A typical farmer＇s capital includes tractor，turbins，plough，seeds，fertilisers，pesticides and cash in hand．Which of these combinations can be classified as working capital？
1．Tractor，turbines and plough
2．Seeds，fertilisers，pesticides and cash in hand
3．Plough，seeds，fertilisers and pesticides


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