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DISTANCE LEARNING PROGRAMME

(ACADEMIC SESSION 2020-2021)

NTSE (STAGE-II) TEST SERIES

SCHOLASTIC APTITUDE TEST (SAT)

MOCK TEST # 1(B)

DATE : 21-03-2021

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. Duration of Test is **120 Minutes** and Questions Paper Contains **100 Questions**. Total Marks are **100**.
2. Answers are to be given on a separate OMR sheet.
3. There are 100 questions in this test. All are compulsory. The question numbers 1 to 40 belong to Science, 41 to 60 pertain to Mathematics and 61 to 100 are on Social Science subjects. 120 minutes are allotted for Science, Mathematics and Social Science.
4. Please follow the instructions given on the OMR sheet for marking the answers.
5. Mark your answers for questions 1–100 on the OMR sheet by darkening the circles.
6. Every correct answer will be awarded one mark. **THERE IS NO NEGATIVE MARKING.**
7. If you do not know the answer to any question, do not waste time on it and pass on to the next one. Time permitting, you can come back to the questions, which you have left in the first instance and attempt them.
8. 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.
9. Rough work can be done anywhere in the booklet but not on the OMR sheet/loose paper.
10. Please return the OMR sheet to the invigilator after the test.

Corporate Office

"SANKALP", CP-6, Indra Vihar, Kota (Rajasthan), INDIA-324005

☎ +91 - 744 - 2757575 ✉ info@allen.ac.in

Pre-Nurture & Career Foundation Division

"SAMANVAYA", C-210/2, Talwandi, Kota (Rajasthan), INDIA-324005

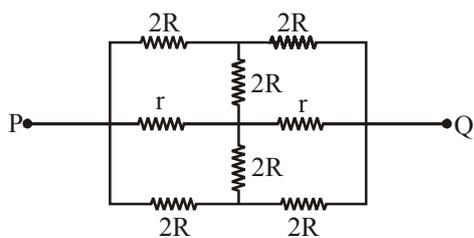
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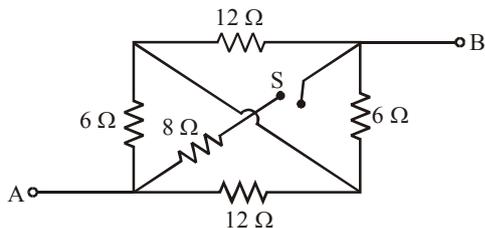
- Two objects A and B when placed in turn in front of a concave mirror of focal length 7.5 cm, give images of equal size. If A is three times the size of B and is placed at 30 cm from the mirror, the distance of B from the mirror is
 (1) 10 cm (2) 12.5 cm
 (3) 15 cm (4) 17.5 cm
- Which of the following forces is not conservative?
 (1) Coulomb force between charged particles at rest.
 (2) Force of a compressed elastic spring.
 (3) Gravitational force between two masses.
 (4) Frictional force.
- An electron and an α -particle enter a magnetic field perpendicularly. Both have same kinetic energies. Then, in the magnetic field :
 (1) The trajectory of electron is more curved.
 (2) The trajectory of α -particle is more curved.
 (3) Both have equally curved trajectories.
 (4) Both moves along a straight path.
- The effective resistance between points P and Q of the electrical circuit shown in fig is



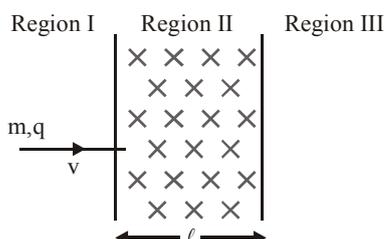
- $\frac{8R(R+r)}{(3R+r)}$
 - $\frac{5R}{2+2r}$
 - $2(r+2R)$
 - $\frac{2Rr}{R+r}$
- A bullet is fired normally on an immovable wooden plank. It loses 25% of its momentum in penetrating a thickness of 3.5 cm. The total thickness penetrated by the bullet is
 (1) 8 cm (2) 10 cm
 (3) 12 cm (4) 14 cm

- A thin uniform cylindrical shell, closed at both ends, is partially filled with water. It is floating vertically in water in half submerged state. If ρ_c is the relative density of the material of the shell with respect to water, then the correct statement is that the shell is
 (1) more than half filled if ρ_c is less than 0.5
 (2) more than half filled if ρ_c is more than 1.0
 (3) half filled if ρ_c is more than 0.5
 (4) less than half filled if ρ_c is less than 0.5
- A satellite is moving with a constant speed 'v' in a circular orbit around the earth. An object of mass 'm' is ejected from the satellite such that it just escapes from the gravitational pull of the earth. At the time of its ejection, the kinetic energy of the object is :
 (1) $\frac{1}{2}mv^2$ (2) mv^2 (3) $\frac{3}{2}mv^2$ (4) $2mv^2$
- The dispersion of light in a medium implies that
 (1) lights of different frequencies travel with different speeds in the medium.
 (2) Lights of all frequencies travel with the same speed in the medium.
 (3) the refractive index of the medium is different for the same wavelengths of light.
 (4) the refractive index of the medium is the same for all frequencies of light.
- A particle starts from rest and traverses a distance '2X' with a uniform acceleration, then moves uniformly over a further distance '4X' and finally, comes to rest after moving '6X' distance under uniform retardation. Assuming entire motion to be rectilinear, the ratio of average speed over the journey to the maximum speed on its way is
 (1) $\frac{4}{5}$ (2) $\frac{3}{5}$ (3) $\frac{2}{5}$ (4) $\frac{1}{5}$

10. The equivalent resistances between point A and B with switch S open and closed respectively are



- (1) 4 Ω, 8 Ω (2) 8 Ω, 4 Ω
(3) 6 Ω, 9 Ω (4) 9 Ω, 6 Ω
11. **Assertion :** According to law of conservation of mechanical energy, change in potential energy is equal and opposite to the change in kinetic energy.
Reason : Mechanical energy is not a conserved quantity.
- (1) Both assertion and reason are true and reason is the correct explanation of assertion.
(2) Both assertion and reason are true but reason is not the correct explanation of assertion.
(3) Assertion is true but reason is false.
(4) Both assertion and reason are false.
12. Same force acts on two different bodies of different masses 3kg and 5kg initially at rest. The ratio of respective time required to acquire the same velocity, by both bodies, is :
- (1) 5 : 3 (2) 25 : 9 (3) 9 : 25 (4) 3 : 5
13. Tuning up the volume control on a radio produces sound with which of the following characteristics?
- (1) Higher frequency
(2) Higher wavelength
(3) Higher speed
(4) Higher intensity
14. A particle of mass 'm' and charge 'q' moving with velocity 'v' enters region II normal to the boundary as shown



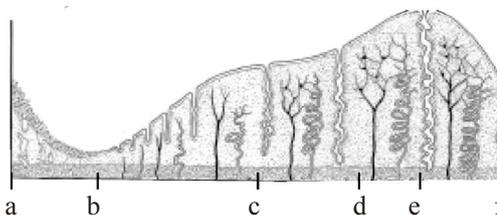
There exists magnetic field of magnitude 'B' perpendicular into the plane of paper in region II only. If the length of region II is ℓ then particle enters region III only when its speed 'v' is such that,

- (1) $v = \frac{q\ell B}{m}$ (2) $v > \frac{q\ell B}{m}$
(3) $v < \frac{q\ell B}{m}$ (4) None of these
15. A dilute Ferrous sulphate solution was gradually added to the beaker containing acidified Permanganate solution. The light purple colour of the solution fades and finally disappears. Which of the following is the correct explanation for the observation?
- (1) KMnO_4 is an oxidizing agent, it oxidizes FeSO_4
(2) FeSO_4 acts as an oxidizing agent and oxidizes KMnO_4
(3) The colour disappears due to dilution, no reaction is involved
(4) KMnO_4 is an unstable compound and decomposes in presence of FeSO_4 to a colourless compound
16. Which one is not a correct statement, depending upon the conditions?
- (1) Ice melts and liquid water is formed
(2) Water changes into vapours and finally steam is formed
(3) When steam strikes the surface of a solid water droplets are formed back
(4) When steam condenses ice is formed back
17. The percentage of water of crystallisation in $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ is [Cu-63.5 u]
- (1) 36.07 (2) 72.14 (3) 9.02 (4) 56.15
18. Arrange the following element in order of their increasing ionization energies O, S, Se, Te, Po:
- (1) $\text{Se} < \text{Te} < \text{S} < \text{Po} < \text{O}$
(2) $\text{O} < \text{S} < \text{Se} < \text{Te} < \text{Po}$
(3) $\text{Po} < \text{Te} < \text{Se} < \text{S} < \text{O}$
(4) $\text{Te} < \text{O} < \text{S} < \text{Po} < \text{Se}$

19. The composition of three atomic particles is given :
- | | X | Y | Z |
|-----------|---|---|---|
| Protons | 8 | 7 | 7 |
| Neutrons | 8 | 9 | 9 |
| Electrons | 8 | 8 | 7 |
- What is the relation between X and Y and between Y and Z ?
- (1) X and Y are isotopes, Y and Z are isotopes
 (2) X and Y are isobars, Z is an ion of Y
 (3) X and Y are isobars, Y is an ion of Z
 (4) No relation between X and Y, Y and Z are same
20. Which of the following order is wrong?
- (1) $\text{NH}_3 < \text{PH}_3 < \text{AsH}_3$ - acidic nature
 (2) $\text{Li}^+ < \text{Na}^+ < \text{K}^+ < \text{Cs}^+$ - ionic radius
 (3) $\text{Al}_2\text{O}_3 < \text{MgO} < \text{Na}_2\text{O} < \text{K}_2\text{O}$ - basic nature
 (4) $\text{Li} < \text{Be} < \text{B} < \text{C}$ - 1st ionisation potential
21. A few elements in the order of decreasing reactivity are :
 $\text{K} > \text{Ca} > \text{Mg} > \text{Fe} > \text{Sn} > \text{H} > \text{Au}$. Identify the incorrect statement.
- (1) Au is the weakest reducing agent.
 (2) K is the strongest oxidising agent.
 (3) The oxide of tin can be reduced with hydrogen.
 (4) Ca displaces hydrogen from water more easily than Fe.
22. On washing with soap, a turmeric stain on the cloth turns to red because
- (a) soap solution is alkaline.
 (b) soap solution is acidic.
 (c) turmeric contains a natural indicator.
 (d) turmeric contains litmus.
- Select the correct alternative.
- (1) (a) and (c) (2) (b) and (d)
 (3) (c) and (b) (4) (a) and (d)
23. One mole of magnesium nitride on reaction with excess of water gives
- (1) One mole of ammonia
 (2) Two moles of ammonia
 (3) One mole of nitric acid
 (4) Two moles of nitric acid
24. An organic compound is a clear liquid having a molecular formula $\text{C}_4\text{H}_8\text{O}$. It has an open chain structure without any carbon-carbon double bond. The compound can be
- (a) an alcohol (b) an ester
 (c) an aldehyde (d) a ketone
 (1) (a) and (b) (2) (c) and (d)
 (3) (b) and (d) (4) (d) and (a)
25. Read the factual information given below and choose the correct answer
- If you mix solutions of barium hydroxide and ammonium chloride in a test tube and touch the bottom of the test tube with your palm. What do you feel? Is this an exothermic or an endothermic reaction?
- (1) Test tube becomes cold and chemical reaction is exothermic
 (2) Test tube becomes hot and chemical reaction is exothermic
 (3) Test tube becomes cold and chemical reaction is endothermic
 (4) Test tube becomes hot and chemical reaction is endothermic
26. When 2 moles of N_2 gas and 9 moles of H_2 gas are mixed and reaction is completed to form NH_3 gas then reaction mixture will contain
- (1) 11 moles of NH_3
 (2) 4 moles of NH_3 + 3 moles of H_2
 (3) 6 moles of NH_3 + 3 moles of H_2
 (4) 2 moles of NH_3 + 1 mole of N_2
27. Which of the following are the correct examples of matter ?
- (1) Glass bottle, water and noise
 (2) Air, wood and vacuum
 (3) Silver foil, hot air and chalk
 (4) Sand, oxygen and light flash
28. Which could be used to monitor the rate of photosynthesis in a plant ?
- (1) Carbon dioxide production
 (2) Water production
 (3) Oxygen production
 (4) Hydrogen production
29. Gas exchange through the skin, supplements the gas exchange occurring in the lungs of
- (1) Birds (2) Amphibians
 (3) Reptiles (4) Insects

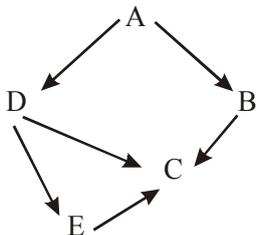
30. Which is true of the human circulatory system?
- (1) The right ventricle of the heart has the thickest wall.
 - (2) Veins have thick walls consisting of smooth muscle cells to assist in returning blood to the heart.
 - (3) Blood flow is slower in capillaries to maximize the diffusion of nutrients and wastes.
 - (4) The left and right ventricles contract alternately, which is responsible for the pulse sound.
31. After demonstration of totipotency a botanist wishes to produce identical plants from an angiosperm by tissue culture. The parts or tissues, which are likely to yield haploid embryos, are
- (1) stem apices
 - (2) root tips
 - (3) tissues from phloem region
 - (4) anthers
32. What is a tonoplast?
- (1) Outer membrane of mitochondria.
 - (2) Inner membrane of chloroplast.
 - (3) Membrane boundary of the vacuole of plant cells.
 - (4) Cell membrane of a plant cell.
33. A farmer's crop is repeatedly getting infected from a fungal disease. The soil in which crop is sown is clayey. Which of these irrigation methods would lessen the chance of infection?
- (1) Sprinkler irrigation
 - (2) Drip irrigation
 - (3) Tube well irrigation
 - (4) Both (1) and (3)
34. In the F₂ generation of a mendelian dihybrid cross the number of phenotypes and genotypes are
- (1) Phenotypes-4 ; genotypes-16
 - (2) Phenotypes-9 ; genotypes-4
 - (3) Phenotypes-4 ; genotypes-8
 - (4) Phenotypes-4 ; genotypes-9

35. The given diagram shows changes in uterine lining during a menstrual cycle (divided in five phases, a to f).



- (i) When release of the egg from the ovary is expected to happen?
 - (ii) When menstruation is expected to occur?
- (1) i-b, ii-e to f
 - (2) i-c to d, ii-e to f
 - (3) i-c, ii-a to b
 - (4) i-d to c, ii-c
36. Assertion : G₁ phase is the interval between mitosis and initiation of DNA replication.
Reason : The cell is metabolically inactive during G₁ phase.
- (1) Both assertion and reason are true and reason is the correct explanation of assertion.
 - (2) Both assertion and reason are true but reason is not the correct explanation of assertion.
 - (3) The assertion is true but reason is false.
 - (4) Both assertion and reason are false.
37. Read the following statements and select the correct option.
- Statement 1 : Urinary bladder is lined by transitional epithelium.
- Statement 2 : Transitional epithelium keeps the size of bladder constant at all time.
- (1) Both statements 1 and 2 are correct and statement 2 is the correct explanation of statement 1
 - (2) Both statements 1 and 2 are correct and statement 2 is not the correct explanation of statement 1
 - (3) Statement 1 is correct and statement 2 is incorrect.
 - (4) Both statement 1 and 2 are incorrect.

38. Refer to the following depiction of a food web for a terrestrial ecosystem.



A toxic pollutant would be found in highest concentrations in which species?

- (1) A (2) B
(3) C (4) D
39. Which one of the following groups of animals is correctly matched with its characteristic feature without any exception?

- (1) Reptilia : possess 3-chambered heart with an incompletely divided ventricle.
(2) Chordata : possess a mouth with an upper and a lower jaw with teeth.
(3) Chondrichthyes : possess cartilaginous endoskeleton.
(4) Mammalia : give birth to young ones.

40. Select the pair that consists of viral diseases

- (1) Mumps and small pox
(2) Herpes and influenza
(3) Pneumonia and syphilis
(4) Both (1) and (2)

41. If m is any positive integer, then the last two digits in the expression $(81)^m(121)^m-1$ are

- (1) 02 (2) 12 (3) 21 (4) 00

42. If $a + b + c = 0$, then $\frac{a^4 + b^4 + c^4}{a^2b^2 + b^2c^2 + c^2a^2}$ is equal to

- (1) 4 (2) 2
(3) 1 (4) 16

43. If $x = a^2 - bc$, $y = b^2 - ca$, $z = c^2 - ab$, then what

is the value of $\frac{ax + by + cz}{(a + b + c)(x + y + z)}$

- (1) 0 (2) 1 (3) 2 (4) 4

44. If α and β are the roots of the equation $x^2 + x + 1 = 0$, then equation whose roots are α^{19} and β^7 is

- (1) $x^2 - x - 1 = 0$ (2) $x^2 - x + 1 = 0$
(3) $x^2 + x - 1 = 0$ (4) $x^2 + x + 1 = 0$

45. If from the top of a tower 50 m high, the angles of depression of two objects due north of the tower are respectively 60° and 45° , then the approximate distance between the objects, is

- (1) $50(\sqrt{2} - 2)$ m (2) $50(\sqrt{3} - 3)$ m
(3) 31 m (4) None of these

46. A cone of semi-vertical angle α is inscribed in a sphere of radius 2 cm. The height of the cone is s

- (1) $2(1 + \sin\alpha)$ (2) $4 \cos^2\alpha$
(3) $4 \sin\alpha$ (4) $4 \cos\alpha$

47. Two equal circles intersect in A and B. Through B, a straight line is drawn to meet the circumference in X and Y. Which of the following is true ?

- (1) $AX = BX$ (2) $AX = AY$
(3) $AY = BY$ (4) $AX = AB$

48. Two water taps together can fill a tank in $9\frac{3}{8}$ hours. The tap of larger diameter takes

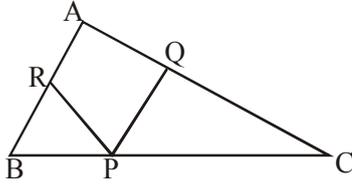
10 hours less than the smaller one to fill the tank separately. Find the time in which each tap can separately fill the tank.

- (1) 25,15 hrs (2) 15,5 hrs
(3) 35,25 hrs (4) 10,20 hrs

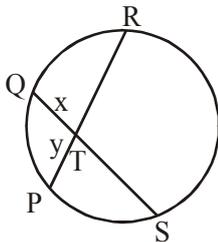
49. Two candles of equal length start burning at the same instant. One of the candle burns in 5 hrs. and the other in 4 hrs. By the time one candle is 2 times the length of the other. The candles have already burnt for

- (1) $2\frac{1}{2}$ hrs (2) $3\frac{1}{2}$ hrs
(3) $3\frac{1}{9}$ hrs (4) $3\frac{1}{3}$ hrs

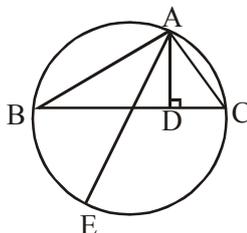
50. In the given triangle ABC, points P, Q and R divide the sides BC, CA and AB in the ratios 1 : 2, 3 : 2 and 3 : 2 respectively. Then the ratio of the area of quadrilateral ARPQ to the area of the triangle ABC.



- (1) $\frac{7}{15}$ (2) $\frac{2}{3}$ (3) $\frac{2}{5}$ (4) $\frac{38}{75}$
51. If a, b are the roots of $x^2 + px + 1 = 0$ and c, d are the roots of $x^2 + qx + 1 = 0$, then the value of $(a - c)(b - c)(a + d)(b + d)$ is :-
- (1) $p^2 - q^2$ (2) $q^2 - p^2$
(3) $q^2 + p^2$ (4) None of these
52. In the following figure, PR and SQ are chords, of the circle with centre O, intersecting at T and $TQ = x$ and $TP = y$, then $(TS + TR) : (TS - TR) =$



- (1) $x : y$ (2) $(x + y) : (x^2 + y^2)$
(3) $(x + y) : (y - x)$ (4) $(x^2 + y^2) : (x^2 - y^2)$
53. In $\triangle ABC$, $AB = 8$ cm, $AC = 6$ cm, altitude $AD = 4.8$ cm. AE is the diameter of the circumcircle. Find the circumradius.



- (1) 5 cm
(2) 15 cm
(3) 10 cm
(4) can't be determined

54. Suppose that $F(n + 1) = \frac{2F(n) + 1}{2}$ for $n = 1, 2, 3, \dots$ and $F(1) = 2$. Then $F(101)$ equals
- (1) 50 (2) 52
(3) 54 (4) none of these

55. The equation whose roots are $\sec^2 \alpha$ & $\operatorname{cosec}^2 \alpha$ can be :
- (1) $2x^2 - x - 1 = 0$ (2) $x^2 - 3x + 3 = 0$
(3) $x^2 - 9x + 9 = 0$ (4) none
56. Find the number of two digit numbers divisible by the product of the digits.
- (1) 7 (2) 11 (3) 4 (4) 5

57. A sector with acute central angle θ is cut from a circle of diameter 14 cm. The area (in cm^2) of the circle circumscribing the sector is :-

- (1) $\frac{22}{7} \sec^2 \frac{\theta}{2}$ (2) $\frac{77}{2} \sec^2 \theta$
(3) $\frac{7}{2} \cos^2 \frac{\theta}{2}$ (4) $\frac{77}{2} \sec^2 \frac{\theta}{2}$

58. The mean of three positive numbers is 10 more than the smallest of the numbers and 15 less than the largest of the three. If the median of the three numbers is 5, then the mean of squares of the numbers is :-

- (1) $108 \frac{2}{3}$ (2) $116 \frac{2}{3}$ (3) $208 \frac{1}{3}$ (4) $216 \frac{2}{3}$

59. A circular metallic sheet is divided into two parts in such a way that each part can be folded into a cone. If the ratio of their curved surface areas is 1 : 2, then the ratio of their volumes is

- (1) 1 : 8 (2) $1 : \sqrt{6}$ (3) $1 : \sqrt{10}$ (4) 2 : 3

60. The value of the expression

$$\frac{1}{\sqrt{11-2\sqrt{30}}} - \frac{3}{\sqrt{7-2\sqrt{10}}} - \frac{4}{\sqrt{8+4\sqrt{3}}}$$

after simplification is

- (1) $\sqrt{30}$ (2) $2\sqrt{10}$ (3) 1 (4) 0

61. Match the following

Column-I		Column-II	
(A)	Jute	(1)	210 frost free days
(B)	Wheat	(2)	Khadar soil
(C)	Tea	(3)	Requires abundant, cheap and skilled labour
(D)	Cotton	(4)	50 - 75 cm of annual rainfall evenly distributed over growing season

- (1) A-4,B-3,C-2,D-1 (2) A-3,B-2,C-1,D-4
 (3) A-4,B-3,C-1,D-2 (4) A-2,B-4,C-3,D-1

62. Arrange the following iron ore mines in the direction of North to South.

1. Bailadila 2. Durg
 3. Mayurbhanj 4. Ballari
 (1) 3, 2, 1, 4 (2) 1, 2, 3, 4
 (3) 4, 3, 2, 1 (4) 1, 2, 4, 3

63. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

Assertion (A): The availability of resources is a necessary condition for the development of any region, but mere availability of resources in the absence of corresponding changes in technology and institutions may hinder development.

Reason (R): There are many regions in our country that are rich in resources but these are included in economically backward regions.

- (1) Both A and R are true and R is the correct explanation of A.
 (2) Both A and R are true but R is not the correct explanation of A.
 (3) A is correct but R is wrong.
 (4) A is wrong but R is correct.

64. With reference to trade, consider the following statements -

- (a) If the values of imports exceed the value of exports, it is called unfavourable balance of trade.
 (b) India exports petroleum and petroleum products.

Which of the following statement(s) given above is/are correct?

- (1) Only (a) (2) Only (b)
 (3) Both (a) & (b) (4) Neither (a) nor (b)

65. Which of the following statements about the reasons for conducting elections are false?

- (1) Elections enable people to judge the performance of the government
 (2) People select the representative of their choice in an election
 (3) Elections enable people to evaluate the performance of the judiciary
 (4) People can indicate which policies they prefer

66. Which of the following Freedom is not given under Right to Freedom of Indian constitution?

- (1) Freedom of Speech
 (2) Freedom to form Association
 (3) Freedom to assemble in peaceful manner
 (4) Freedom to move freely in any country

67. If you are elected as the President of India, which of the following decision can you take on your own?

- (1) Select the person you like as Prime Minister.
 (2) Dismiss a Prime Minister who has a majority in Lok Sabha.
 (3) Ask for reconsideration of a bill passed by both the Houses.
 (4) Nominate the leaders of your choice to the Council of Ministers.

68. ZANU-PF was the party of _____.

- (1) Zimbabwe (2) Mexico
 (3) China (4) Pakistan

69. Which of the following languages is not included in the list of scheduled languages in the Indian constitution?

- (1) English (2) Maithili
 (3) Bodo (4) Sindhi

70. Match the following:

Political Party		Political Symbol	
(A)	Indian National Congress	(1)	
(B)	Nationalist Congress Party	(2)	
(C)	Bharatiya Janata Party	(3)	
(D)	Bahujan Samaj Party	(4)	

- (1) A-4,B-2,C-1,D-3 (2) A-3,B-1,C-4,D-2
 (3) A-4,B-3,C-2,D-1 (4) A-4,B-3,C-1,D-2

71. Democracy is considered to be better than other forms of government. Which of the following statements support this claim?

- A. It is a more accountable form of government.
 B. It improves the quality of decision making
 C. It ensures rapid economic development of citizens
 D. It enhances the dignity of citizens

- (1) A, B and D (2) A and C
 (3) A, B and C (4) B, C and D

72. Which of the following is not a feature of Indian Federalism?

- (1) The constitution creates a strong centre.
 (2) The constitution provides for a single judiciary
 (3) The constitution provides for a common All India Services.
 (4) The constitution provides equal representation to the States in the Upper House of the Parliament

73. Nandu is a 10 year old boy. He is living in a slum. He used to be a rag picker. His father is a construction labour. His mother washes dishes at homes in a nearby posh colony. One day an NGO came at the slum and made people aware about the benefits of education. They also set up classes for the education of the children of slums. Nandu used to go there daily. Within a few months he learnt counting, alphabets and some good habits like washing hands before eating.

Now he helps her mother in making budget of household, checking price of items which he buys from nearby shop. He also teaches counting to his 6 year old sister at home.

Analyse the information given above, considering one of the following correct option

- (1) Human capital formation
 (2) Physical capital formation
 (3) Non-market economic activity
 (4) None of the above.

74. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option :

Assertion (A) : Since 1980s, India's economic growth has been one of the fastest in the world.

Reason (R) : The poor are not directly benefitted from the opportunities created by economic growth.

- (1) Both A and R are true and R is the correct explanation of A.
 (2) Both A and R are true, but R is not the correct explanation of A.
 (3) A is correct, but R is wrong.
 (4) A is wrong, but R is correct.

75. Workers in different sectors (in millions)

Sector	Unorganised	Organised	Total
Primary	200	2	202
Secondary	50	5	55
Tertiary	80	20	100
Total	330	27	357
Total in percentage			100%

What is the percentage of people in organised sector?

- (1) 8.4% (2) 9.6%
 (3) 7.6% (4) 10%

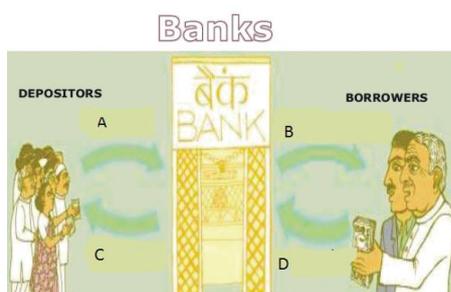
76. Assume there are four families in a country. The average per capita income of these families is Rs. 5000. If the income of three families is Rs. 4000, Rs. 7000 and Rs. 3000 respectively, what is the income of the fourth family?

- (1) Rs. 7,500 (2) Rs. 3,000
 (3) Rs. 2,000 (4) Rs. 6,000

77. "The MNC provides benefit to the local company". Choose the suitable statement which prove above statement correct.
 (1) MNCs can provide money for additional investment.
 (2) MNCs might bring with them the lowest technology for production
 (3) MNCs buy local companies.
 (4) Both (1) and (2)
78. Match the following items given in column-I with those in column-II

Column-I		Column-II	
(A)	Minimum Support Price	(1)	Food Corporation of India
(B)	Buffer Stock	(2)	Ration cards
(C)	Public Distribution System	(3)	Government
(D)	BPL and APL	(4)	Fair Price Shops

- (1) A-3,B-1,C-4,D-2 (2) A-3,B-2,C-4,D-1
 (3) A-4,B-3,C-2,D-1 (4) A-2,B-1,C-4,D-3
79. Ahmad lives in a village of Hisar in Haryana. He has small farm of 2 hectare. He himself, his wife and his elder son Asif, do all the farm related work like tilling, sowing the seed and manuring. For irrigation, he is dependent on rainfall. Every year, most of his crop fails. One day, his friend suggested him to use a special type of seeds, chemical fertilizers and pesticides. He followed friend's suggestion. He took agriculture loan and arranged the aforesaid items. This time his crops not failed. Moreover his production is increased. Analyse the information given above and consider which one of the following farming method he used to achieve more production:
 (1) Multiple cropping method
 (2) Modern farming method
 (3) Traditional farming method
 (4) None of the above
80. Identify the correct pairs which is best suitable to the image and mark the correct option.



1. People make deposits
 2. People repay loans with interest
 3. People make withdrawals and get interest
 4. People take loans
 (1) A-1,B-3,C-4,D-2 (2) A-1,B-4,C-3,D-2
 (3) A-1,B-2,C-3,D-4 (4) A-1,B-4,C-2,D-3
81. Arrange the following incidents of French Revolution in the correct chronological sequence:
 (i) The Tennis Court Oath
 (ii) Louis XVI called an assembly of the Estates General
 (iii) Louis XVI accorded recognition to the National Assembly
 (iv) The crowd stormed and destroyed the Bastille
 Options:
 (1) i-iv-iii-ii (2) iii-iv-i-ii
 (3) ii-i-iv-iii (4) iii-iv-ii-i
82. What was the Comintern ?
 (1) Bolshevik-founded International Union of Pro Bolshevik Socialist Parties.
 (2) USSR's Communist University.
 (3) Collective farms in USSR.
 (4) Term refers to non-Russian communities in USSR
83. Arrange the following in the correct chronological sequence:
 (i) Start of The Great Economic Depression
 (ii) Chancellorship was offered to Hitler
 (iii) Hitler planned march to Berlin and capture power
 (iv) Enabling Act was passed
 Options:
 (1) i-iv-iii-ii (2) iii-iv-i-ii
 (3) iv-i-ii-iii (4) iii-i-ii-iv
84. Match the following

Column-I		Column-II	
(A)	Sacred groves	(1)	Dutch
(B)	Scorched earth policy	(2)	Brazil
(C)	Tribes of Bastar	(3)	Central America
(D)	Manioc	(4)	Sarnas, Kan, Rai
(E)	Milpa	(5)	Maria, Dhurwas and Halbas

- (1) A-5, B-4, C-1, D-2, E-3
 (2) A-4, B-1, C-5, D-2, E-3
 (3) A-1, B-2, C-3, D-4, E-5
 (4) A-5, B-4, C-2, D-3, E-1

85. Match the following

Column-I		Column-II	
(A)	Bedouins	(1)	Maharashtra
(B)	Raika	(2)	Spring crop
(C)	Dhangars	(3)	Autumn crop
(D)	Rabi	(4)	Desert region of Rajasthan
(E)	Kharif	(5)	Africa

- (1) A-4, B-1, C-5, D-2, E-3
 (2) A-1, B-2, C-3, D-4, E-5
 (3) A-5, B-4, C-1, D-2, E-3
 (4) A-5, B-4, C-2, D-3, E-1

86. Match the following

Column-I		Column-II	
(A)	France	(1)	Reichstag
(B)	Russia	(2)	National People's Congress
(C)	China	(3)	Duma
(D)	Germany	(4)	National Assembly

- (1) A-4, B-3, C-2, D-1 (2) A-1, B-2, C-3, D-4
 (3) A-4, B-3, C-1, D-2 (4) A-3, B-1, C-4, D-2

87. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

Assertion (A): In February 1922, Mahatma Gandhi decided to withdraw the Non-Cooperation Movement.

Reason (R): It was done due to Gandhi-Irwin Pact.

- (1) Both A and R are true and R is the correct explanation of A.
 (2) Both A and R are true but R is not the correct explanation of A.
 (3) A is correct but R is wrong.
 (4) A is wrong but R is correct.

88. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

Assertion (A) : From the very beginning, the French Revolutionaries introduced various measures and practices like the idea of a new Tri-colour French Flag.

Reason (R): This was done to create a sense of collective identity amongst the French People.

- (1) Both A and R are true and R is the correct explanation of A.
 (2) Both A and R are true but R is not the correct explanation of A.
 (3) A is correct but R is wrong.
 (4) A is wrong but R is correct.

89. _____ improved the steam engine produced by _____ and patented the new engine in 1781.

- (1) James Watt, New Comen
 (2) James Watt, Mathew Boulton
 (3) Mathew Boulton, New Comen
 (4) None of the above

90. The Balkans, which was a serious source of nationalist tension in Europe after 1871, was a region comprising of:

- (1) Romania, Germany, Poland, Bulgaria.
 (2) Romania, Prussia, Greece, Croatia and Serbia.
 (3) Serbia, Austria, Bulgaria, Slovakia and Poland.
 (4) Serbia, Bulgaria, Greece, Croatia, Romania.

91. Arrange the following in the correct sequence:

- (i) Demand for food grains in Britain
 (ii) Corn laws
 (iii) Consumption of food in Britain rose
 (iv) Food came from thousands of miles away
 (1) (i)-(ii)-(iii)-(iv) (2) (iv)-(iii)-(ii)-(i)
 (3) (ii)-(iv)-(i)-(iii) (4) (i)-(iv)-(iii)-(ii)

92. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:

Assertion (A): By the settlement of Vienna, Belgium was annexed to Holland to set up a powerful state in north east border of France.

Reason (R): In the revolution of 1848, men and women of middle classes continued their demand for constitutionalism.

- (1) Both A & R are true but R is the correct explanation of A.
 (2) Both A & R are true but R is not the correct explanation of A.
 (3) A is true, R is false.
 (4) A is false, R is true.

93. Which of the following statement is true regarding ITCZ?

- (1) Broad trough of high pressure
- (2) It is where the northeast and southwest trade winds converge.
- (3) It generally lies more or less parallel to the equator.
- (4) It does not move north or south with the apparent movement of the sun.

94. Rohan was on a school trip to a biosphere reserve located on a river delta. There he saw that Trees have long roots submerged under the water. When he touched a leaf of a tree he felt a powder like substance on it.

Analyse the information given above, identify the forest type and choose one of the following correct

- (1) Tropical Evergreen Forests
- (2) Tropical Deciduous Forests
- (3) Mangrove Forests
- (4) Montane Forests

95. Arrange the following rivers from north to south in the correct seunce :

- | | |
|-------------------------|-------------------------|
| (i) The Godavari | (ii) The Tapi |
| (iii) The Kaveri | (iv) The Krishna |
| (1) (i)-(iv)-(iii)-(ii) | (2) (iii)-(iv)-(i)-(ii) |
| (3) (ii)-(i)-(iv)-(iii) | (4) (iii)-(iv)-(ii)-(i) |

96. Amit was studying a book on Himalayan Mountains.He was so amazed when he learnt about the Himalayas. Now he was curious to know whether Himalayas are the only mountain in India or there are others also. He went to his grandfather and asked his uestion. His grandfather said that the Himalayas are not the only mountains in India. There are several other mountains and hills in India. First he told him about a hill range which is located in north-western part of India. He said that it is among the very old hills of the world. These are highly eroded hills and are found as broken hills.

Analyse the information given above and identify the hills among one of the following options.

- (1) Western Ghats
- (2) Eastern Ghats
- (3) Aravali Hills
- (4) Satpura Range

97. The southernmost point of the Indian Union is-

- (1) Kanyakumari
- (2) Tamil Nadu
- (3) Indira Point
- (4) Kerala

98. It does not change the size of population in a country.

- (1) Internal Migration
- (2) International Migration
- (3) Both (1) and (2)
- (4) None of the above

99. Which of the following is not true regarding Cement Industry?

- (1) The first cement plant was set up in Chennai in 1904
- (2) It requires bulky and heavy materials like limestone,etc.
- (3) Efforts are being made to generate adequate domestic demand and supply in order to destroy this industry.
- (4) The industry has plants in Gujarat.

100. Identify the marked port on the Map.



- | | |
|-------------|---------------|
| (1) Kochchi | (2) Tuticorin |
| (3) Chennai | (4) Paradwip |