SAT-2 **NTSE(I)/19-20**

राष्ट्रीय प्रतिभा खोज परीक्षा (प्रथम स्तर) 2019-20
NATIONAL TALENT SEARCH EXAMINATION (Stage-I) 2019-20

702–B

Roll No. रोल नम्बर

Booklet Number पुस्तिका संख्या

711481

SCHOLASTIC APTITUDE TEST
(For Students of Class X)

Time : 120 Minutes Max. Marks : 100

(For Candidates with benchmark disabilities.
Time : 2 Hours 30 Minutes)

INSTRUCTIONS TO CANDIDATES

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

1. Answers are to be given on a **separate answer sheet (OMR sheet)**.
2. Write your **Roll Number** as allotted to you in the admission card very clearly on **the test-booklet** and darken the appropriate circles on the **answer sheet** as per instructions given.
3. There are 100 questions in this test. All are compulsory. The question numbers 1 to 13 belong to Physics, 14 to 26 Chemistry, 27 to 33 Botany, 34 to 40 Zoology, 41 to 60 Mathematics, 61 to 71 History, 72 to 82 Geography, 83 to 93 Political Science and 94 to 100 are on Economics subjects.
4. Please follow the instructions given on the answer sheet for marking the answers.
5. 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.
6. 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.
7. **Rough work** can be done **on the given Blank Pages at the back of the booklet** but not on the answer sheet/loose paper.
8. Every correct answer will be awarded one mark. There will be no negative marking.
9. **Please return the Answer sheet (OMR Sheet) only to the invigilator after the test.**
10. Hindi version of the question paper will be considered as final in case of any dispute arising out of variation in translated version.

PLEASE TURN OVER THE PAGE AND START YOUR WORK.

शैक्षिक योग्यता परीक्षा
(कक्षा X के विद्यार्थियों के लिए)

समय : 120 मिनट पूर्णांक : 100

(विशेष योग्यजन के लिए समय : 2 घंटे 30 मिनट)

परीक्षार्थियों के लिए निर्देश

प्रश्न पुस्तिका खोलने से पहले निम्न निर्देशों को ध्यान से पढ़िए।

1. उत्तर एक **अलग उत्तर पत्रक (ओ० एम० आर० शीट)** में देने हैं।
2. कृपया अपना **रोल नम्बर** जैसा कि आपके प्रवेश पत्र पर दिया गया है, निर्देशानुसार **टेस्ट पुस्तिका** पर बहुत स्पष्ट लिखिये और **उत्तर-पत्रक** पर दिये गये गोलों को काला करें।
3. इस परीक्षा में 100 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं। प्रश्न संख्या 1 से 13 भौतिक विज्ञान, 14 से 26 रसायन विज्ञान, 27 से 33 वनस्पति विज्ञान, 34 से 40 प्राणी विज्ञान, 41 से 60 गणित, 61 से 71 इतिहास, 72 से 82 भूगोल, 83 से 93 राजनीति विज्ञान एवं 94 से 100 अर्थशास्त्र विषयों पर आधारित हैं।
4. कृपया उत्तर चिह्नित करने के लिए उत्तर-पत्रक पर दिये गये निर्देशों को ध्यान से समझ कर उनकी अनुपालना कीजिए।
5. यदि आप किसी प्रश्न का उत्तर नहीं जानते हैं तो उस पर बहुत समय न गंवाइये और अगले प्रश्न पर बढ़ जाइये। यदि बाद में समय मिले तो जिन प्रश्नों को आपने पहले छोड़ दिया था, उन पर वापस आकर उनके उत्तर दीजिए।
6. क्योंकि इस प्रश्न पत्र के लिए निर्धारित समय बहुत सीमित है, इसलिए इसका अधिकतम उपयोग कीजिये और किसी प्रश्न पर बहुत समय न लगाइये।
7. **रफ कार्य** पुस्तिका के अंत में दिए गए रिक्त पृष्ठों पर किया जा सकता है किन्तु **उत्तर-पत्रक/अलग कागज** पर नहीं।
8. प्रत्येक सही उत्तर का एक अंक प्रदान किया जाएगा। इसमें ऋणात्मक अंकन नहीं होगा।
9. **कृपया परीक्षा के बाद केवल उत्तर-पत्रक (ओ० एम० आर० शीट) ही निरीक्षक को लौटाइए।**
10. अनुवादित विवरण में अन्तर से उठे किसी भी विवाद की स्थिति में प्रश्न-पत्र के हिन्दी विवरण को निर्णायक माना जाएगा।

कृपया पृष्ठ पलटिये और अपना कार्य आरम्भ कीजिए।

NATIONAL TALENT SEARCH EXAMINATION-2019-20, RAJASTHAN

SCHOLASTIC APTITUDE TEST (SAT) PAPER & HINTS & SOLUTION

PHYSICS

1. If work, force and time are represented by A, B and C respectively then the term $\left(\frac{A}{BC}\right)$ will present.

(1) Displacement (2) Velocity (3) Acceleration (4) Momentum

Sol. **(2)**

$\frac{A}{BC} = \frac{\text{Work}}{\text{Force} \times \text{time}} = \frac{F \times S}{F \times T} = \frac{S}{T}$ = velocity

2. The initial velocity of a particle is 10 m/s. It is moving with an acceleration of 4 m/s^2. The distance covered by the particle after 2s is

(1) 6 m (2) 18 m (3) 22 m (4) 28 m

Sol. **(4)**

$S = ut + \frac{1}{2}at^2$

$= (10 \times 2) + (\frac{1}{2} \times 4 \times 4) = 28$

3. Unit of universal gravitational constant is

(1) N-m^2/kg (2) N-m^2/kg^2 (3) N-kg^2/m^2 (4) N-m/kg^2.

Sol. **(2)**

$G = \frac{Fr^2}{m_1 m_2} = \frac{Nm^2}{kg^2}$

4. If the speed of wave is 350 m/s and its wavelength is 100 cm then the frequency of the wave will be

(1) 35 Hz (2) 350 Hz (3) 700 Hz (4) 3500 Hz

Sol. **(2)**

$V = f\lambda$

$350 = f \times 1$ $\therefore f = 350$ Hz

5. The wave having compression and rarefaction is known as

(1) Transverse wave (2) Longitudinal wave (3) light wave (4) Ultraviolet wave

Sol. **(2)**

From definition

6. If the distance between two masses is doubled then the gravitational force between them will be

(1) one-fourth (2) half (3) double (4) four times

Sol. **(1)**

$F = \frac{Gm_1 m_2}{r^2}$

Now $F \propto \frac{1}{r^2}$

Since r is doubled

$\therefore$ F becomes $\frac{1}{4}$

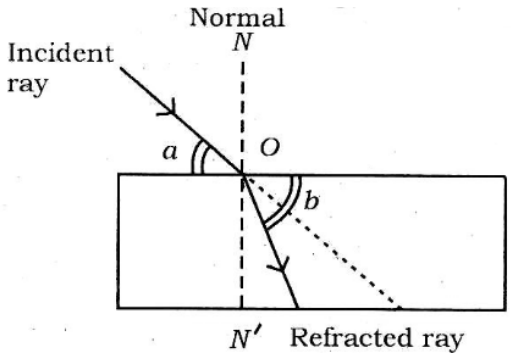
7. Focal length of a lens is 25 cm. In diopter power of lens will be

(1) 0.04 (2) 0.4 (3) 4 (4) 2.5

Sol. **(3)**

$P = \frac{1}{f} = \frac{100}{25} = 4D$

8. In the given ray diagram correct relation for Snell's law is



(1) $\frac{\sin a}{\sin b}$ = constant (2) $\frac{\sin b}{\sin a}$ = constant

(3) $\frac{\sin (90 - a)}{\sin (90 - b)}$ = constant (4) $\frac{\sin (90 - a)}{\sin b}$ = constant

Sol. **(3)**

Angle of incidence and refraction are measured w.r.t normal.

$\therefore \frac{\sin(90 - a)}{\sin(90 - b)}$ = constant

9. Which term does not represent electric power ?

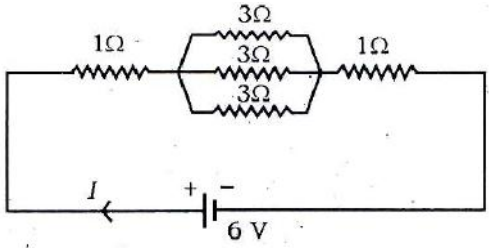
(1) $P = \frac{V}{I}$ (2) $P = VI$ (3) $P = I^2R$ (4) $P = \frac{V^2}{R}$

Sol. **(1)**

As per formula

$P = VI$

10. In the given circuit the value of current I will be



(1) $\frac{6}{11}$ A (2) $\frac{6}{5}$ A (3) 2 A (4) 1 A

Sol. **(3)**

Equivalent resistance = $\left(\frac{1}{3}+\frac{1}{3}+\frac{1}{3}\right)^{-1}+1+1 = 3\Omega$

$\because$ V = IR
6 = 3I
$\therefore$ I = 2A

11. Unit of magnetic flux is
(1) volt (2) weber (3) hertz (4) ohm-metre

Sol. **(2)**
As per definition ϕ - weber

12. Spring constant of a spring is K = 6×10^3 N/m. Work done to stretch it 10^{-2} m from mean position is
(1) 0.003 J (2) 0.03 J (3) 0.3 J (4) 3 J

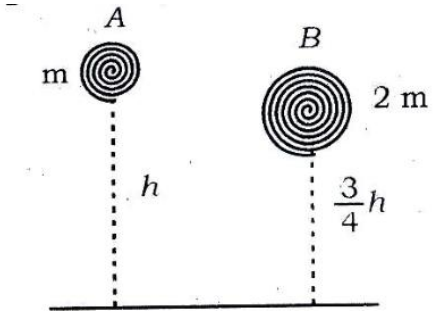
Sol. **(3)**

Work done = $\frac{1}{2}kx^2$

= $\frac{1}{2} \times 6 \times 10^3 \times (10^{-2})^2$

= 0.3J

13. Ratio of potential energies of body A and body B will be



(1) $\frac{U_A}{U_B}=\frac{2}{3}$ (2) $\frac{U_A}{U_B}=\frac{3}{2}$

(3) $\frac{U_A}{U_B}=\frac{1}{3}$ (4) $\frac{U_A}{U_B}=\frac{3}{4}$

Sol. **(1)**

Ratio of potential Energy $\frac{U_A}{U_B}=\frac{m_1gh_1}{m_2gh_2}=\frac{mgh}{2mg\frac{3}{4}h}=\frac{2}{3}$

CHEMISTRY

14. Example of an element among the following is
(1) Water (2) Ammonia (3) Salt (4) Iron

Sol. **(4)**
Iron

15. Atomicity of oxygen in ozone molecule is :
(1) 1 (2) 2 (3) 3 (4) 4

Sol. **(3)**
$O_3 \rightarrow$ Atomicity-3 (no. of atoms present in a molecule)

16. Number of moles present in 0.36 g of water is :
(1) 0.1 (2) 0.2 (3) 0.01 (4) 0.02

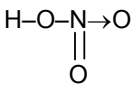
Sol. **(4)**
Mole = $\frac{0.36g}{18g}$ = 0.02 mol

17. Radioactive isotope used in the treatment of cancer disease is :
(1) Iodine-131 (2) Cobalt-60 (3) Sodium-24 (4) Chlorine-37

Sol. **(2)**
Cobalt – 60

18. The number of coordinate covalent bonds in the structure of nitric acid is :
(1) 0 (2) 1 (3) 2 (4) 3

Sol. **(2)**
Coordinate bond = 1



19. The pair of valencies exhibited by tin (Sn) is
(1) 1,4 (2) 1,2 (3) 2,3 (4) 2,4

Sol. **(4)**
Variable valencies of Sn $\Rightarrow Sn^{+2}$, Sn^{+4}

20. The conjugate bases of Bronsted acids H_2O and HCl are respectively
(1) OH^-, Cl^- (2) H_3O^+, Cl^- (3) H_3O^+, Cl^+ (4) OH^-, Cl^+

Sol. **(1)**
conjugate bases of H_2O is OH^-
& HCl is Cl^-

21. The chemical formula of 'Plaster of Paris' is :
(1) $CaSO_4 . \frac{1}{2} H_2O$ (2) $CaSO_4 . 2H_2O$ (3) $CaSO_4 . H_2O$ (4) $CaSO_4 . \frac{3}{2} H_2O$

Sol. **(1)**
P.O.P. $\rightarrow CaSO_4 . \frac{1}{2} H_2O$

22. The oxidation reaction in the following chemical changes is
(1) $Cl + e^- \rightarrow Cl^-$ (2) $Mg^{+2} + 2e^- \rightarrow Mg$
(3) $MnO_4^- + e^- \rightarrow MnO_4^{-2}$ s(4) $Fe^{+2} \rightarrow Fe^{+3} + e^-$

Sol. **(4)**
$Fe^{+2} \rightarrow Fe^{+3} + e^-$
Increase in oxidation number is oxidation.

23. $N_2(g) + 3H_2(g) \xrightarrow{Fe/Mo} 2NH_3(g)$
Mo in the above reaction is
(1) Catalyst promoter (2) Catalyst poison (inhibitor)
(3) Bio-catalyst (4) Auto-catalyst

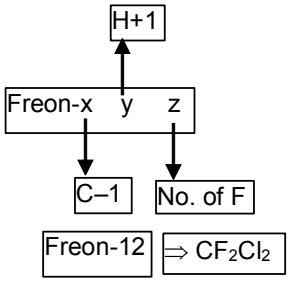
Sol. **(1)**
In Haber's process **"Mo"** work as catalyst promoter.

24. Element having highest electronegativity in the periodic table is
(1) F (2) Cl (3) Br (4) I

Sol. **(1)**
F is highest E.N. element in P.T.

25. The molecular formula of 'Freon-12' is
(1) $CFCl_3$ (2) CF_2Cl_2 (3) $C_2F_2Cl_4$ (4) $C_2F_3Cl_3$

Sol. **(2)**
freon -XYZ
Where X = Number of carbon atoms in freon molecule –1 i.e. (C–1)
Y = Number of hydrogen atoms present in freon molecule +1 i.e. (H+1)
Z = Number of fluorine atoms present in freon molecule.



26. The monomer units of terylene polymer are
(1) Terephthalic acid and ethylene glycol
(2) Adipic acid and ethylene glycol
(3) Terephthalic acid and hexamethylene diamine
(4) Adipic acid and hexamethylene diamine

Sol. **(1)**
Monomer units of Terylene polymers are the Terephthalic acid and ethylene glycol.

BIOLOGY

27. The habitat related with presence of sunken stomata in leaves is
(1) Hydrophytic (2) Mesophytic (3) Xerophytic (4) Cryophytic

Sol. **(3)**

28. Micronutrient element is
(1) Nitrogen (2) Zinc (3) Magnesium (4) Potassium

Sol. **(2)**

29. Coralloid root is found in
(1) Cycas (2) Pinus (3) Marsilia (4) Azolla

Sol. **(1)**

30. The root of which plant is used as medicine ?
(1) *Curcuma longa* (2) *Aloe vera*
(3) *Rauwolfia serpentina* (4) *Papaver Somniferum*

Sol. **(3)**

31. Phenotypic ratio of F_2 generation in dihybrid cross is
(A) 3 : 1 (B) 9 : 3 : 3 : 1 (C) 1 : 2 : 1 (D) 2 : 1

Sol. **(2)**

32. How many biodiversity hotspots are there in the world ?
(A) 25 (B) 33 (C) 20 (D) 34

Sol. **(4)**

33. From which district of Rajasthan did Chipko movement begin ?
(A) Jodhpur (B) Jaipur (C) Ajmer (D) Jaisalmer

Sol. **(1)**

34. The part of human brain, which controls involuntary actions is
(A) Cerebrum (B) Cerebellum (C) Medulla oblongata (D) Optic lobe

Sol. **(3)**

35. The disease caused by protein deficiency in food is
(A) Kwashiorkor (B) Scurvy (C) Pellagra (D) Rickets

Sol. **(1)**

36. The parts of large intestine are
(A) Duodenum, Ileum, Colon (B) Caecum, Colon, Rectum
(C) Duodenum, Jejunum, Ileum (D) Jejunum, Ileum, Caecum

Sol. **(2)**

37. The hormone , not secreted by ovary is
(A) Testosterone (B) Estrogen (C) Progesterone (D) Relaxin

Sol. **(1)**

38. Pseudocoelomate animals are
(A) Aschelminthes (B) Annelids (C) Arthropods (D) Molluscs

Sol. **(1)**

39. Protozoan disease is
(A) AIDS (B) Leprosy (C) jaundice (D) Malaria

Sol. **(4)**

40. The disease caused by deficiency of Vitamin K is
(A) Haemorrhage (B) Sterility (C) Rickets (D) Scurvy

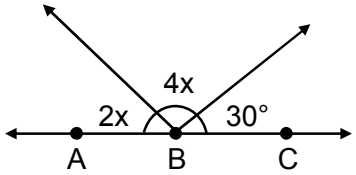
Sol. **(1)**

MATHEMATICS

41. If one's digit and ten's digit of a number are a and b respectively, then the number will be
(1) 10b + a (2) 10a + b (3) a + b (4) ab

Sol. **(1)**
Number = 10 × ten's digit + one's digit = 10 × b + a = 10b + a

42. If ABC is a straight line then value of x, in the given diagram will be



(1) 15° (2) 20° (3) 25° (4) 30°

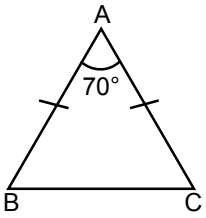
Sol. **(3)**
2x + 4x + 30° = 180°
6x = 150°
$x = \frac{150}{6} = 25°$

43. The sum of all interior angles of a Heptagon is
(1) 360° (2) 540° (3) 720° (4) 900°

Sol. **(4)**
Sum of interior angle of heptagon (n = 7)
= (n – 2) 180°
= (7 – 2) 180°
= 5 × 180
= 900°

44. If in a ΔABC, AB = AC and $\angle A = 70°$ then $\angle B$ is equal to
(1) 50° (2)55° (3) 60° (4) 65°

Sol. **(2)**

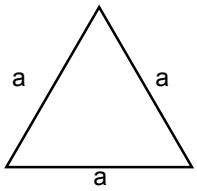


AB = AC
$\therefore \angle B = \angle C$
In ΔABC
$\angle A + \angle B + \angle C = 180°$
$70° + \angle B + \angle B = 180°$
$2\angle B = 110°$
$\angle B = 55°$

45. If the perimeter of an equilateral triangle is 24 cm, then its area will be

(1) $16\sqrt{3}$ sq. cm (2) $32\sqrt{3}$ sq. cm (3) $48\sqrt{3}$ sq. cm (4) $64\sqrt{3}$ sq. cm

Sol. **(1)**



Perimeter = 3a = 24 cm

a = 8 cm

Area = $\frac{\sqrt{3}}{4}a^2 = \frac{\sqrt{3}}{4}(8)^2 = 16\sqrt{3}\ cm^2$

46. If the volume of a cuboid is 3000 cm^3 and area of its base is 150 cm^2, then the height of the cuboid is

(1) 10 cm (2) 15 cm (3) 20 cm (4) 25 cm

Sol. (3)

Volume of cuboids = area of base × height

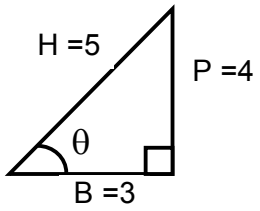
3000 = 150 × h

h = $\frac{3000}{150}$ = 20 cm

47. If $\sin\theta = \frac{4}{5}$ then the value of $\frac{4\tan\theta - 5\cos\theta}{\sec\theta + 4\cot\theta}$ will be

(1) $\frac{2}{3}$ (2) $\frac{1}{3}$ (3) $\frac{3}{4}$ (4) $\frac{1}{2}$

Sol. **(4)**



$\sin\theta = \frac{4}{5}$; $\therefore \tan\theta = \frac{4}{3}$; $\cot\theta = \frac{3}{4}$

$\sec\theta = \frac{5}{3}$; $\cos\theta = \frac{3}{5}$

put values in the expression $\frac{4\tan\theta - 5\cos\theta}{\sec\theta + 4\cot\theta}$

$= \frac{4\left(\frac{4}{3}\right) - 5\left(\frac{3}{5}\right)}{\frac{5}{3} + 4\left(\frac{3}{4}\right)} = \frac{\frac{16}{3} - 3}{\frac{5}{3} + 3} = \frac{\frac{16-9}{3}}{\frac{5+9}{3}} = \frac{\frac{7}{3}}{\frac{14}{3}} = \frac{1}{2}$

48. How much time the minute hand of a clock will take to describe an angle of $\frac{}{3}$

(1) 15 minutes (2) 20 minutes (3) 10 minutes (4) 25 minutes

Sol. **(2)**

$\frac{2\pi}{3}$ radian = $\left(\frac{2\pi}{3}\times\frac{180}{\pi}\right)^{\circ}$ = 120°

In 1 minute, minute hand described 6° angle

$\therefore$ time required to described 120° = $\frac{120^{\circ}}{6^{\circ}}$ = 20 = 20 minutes

49. If Least Common Multiple (LCM) of a and 510 is 23460 and Highest Common Factor (HCF) of a and 510 is 2 then value of a is

(1) 92 (2) 910 (3) 52 (4) 500

Sol. **(1)**

Product of number = HCF × LCM

a × 510 = 2 × 23460

a = $\frac{2\times 23460}{510}$ = 92

50. Discriminant of quadratic equation $2\sqrt{2}x^2 + 4x + \sqrt{2} = 0$ will be

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

Sol. **(1)**

$2\sqrt{2}\,x^2 + 4x + \sqrt{2} = 0$

$D = (4)^2 - 4\,(2\sqrt{2})\,(\sqrt{2})$

$16 - 8 \times 2$

$= 16 - 16 = 0$

51. How many multiple of 3 are there in between 20 and 200 ?

(1) 50 (2) 55 (3) 60 (4) 65

Sol. **(3)**

21 , 24 , 27 , ….,198

a = 21

d = 3

a_n = 198

a + (n – 1)d = 198

21 + (n – 1)3 = 198

(n – 1)3 = 177

n – 1 = 59

n = 60

52. The value of (cos 0° + sin 45° + sin 30°) (sin 90° – cos 45° + cos 60°) will be

(1) $\frac{4}{7}$ (2) $\frac{3}{2}$ (3) $\frac{5}{7}$ (4) $\frac{7}{4}$

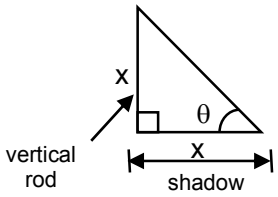
Sol. **(4)**

(cos0° + sin45° + sin30°) (sin90° – cos45° + cos60°) = $\left(1+\frac{1}{\sqrt{2}}+\frac{1}{2}\right)\left(1-\frac{1}{\sqrt{2}}+\frac{1}{2}\right)$

= $\left(\frac{2+\sqrt{2}+1}{2}\right)\left(\frac{2-\sqrt{2}+1}{2}\right)$ = $\left(\frac{3+\sqrt{2}}{2}\right)\left(\frac{3-\sqrt{2}}{2}\right)$ = $\left(\frac{9-2}{4}\right)=\frac{7}{4}$

53. If the ratio of the length of a vertical rod and the length of its shadow is 1 : 1 then angle of elevation of sun is
(1) 30° (2) 45° (3) 60° (4) 90°

Sol. **(2)**



$\tan\theta = \frac{x}{x} = 1$

$\theta = 45°$

54. Quadrilateral formed by the vertices (1, 4), (– 5, 4), (– 5, – 3) and (1, – 3) will be
(1) Square (2) Rectangle (3) Rhombus (4) None of these

Sol. **(2)**

(1,–3) D C (– 5,–3)

(1,4) A B (– 5,4)

AB = $\sqrt{(1+5)^2+(4-4)^2}$ =6

BC = $\sqrt{(-5+5)^2+(-3-4)^2}$ =7

CD = $\sqrt{(-5-1)^2+(-3+3)^2}$ =6

AD = $\sqrt{(1-1)^2+(4+3)^2}$ =7

AC = $\sqrt{(-5-1)^2+(-3+4)^2}$ = $\sqrt{85}$

BD = $\sqrt{(1+5)^2+(-3-4)^2}$ = $\sqrt{85}$

as opposite sides are equal and diagonal are equal, so it is a rectangle

55. The point of concurrence of three interior angle bisectors of a triangle is called
(1) Centre of gravity (2) Circumcentre (3) Orthocentre (4) Incentre

Sol. **(4)**
Incentre

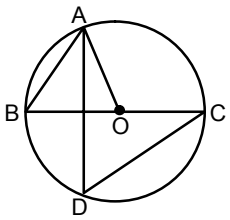
56. The areas of two similar triangles are 36 cm^2 and 81 cm^2 respectively. If the median of smaller triangle is 12 cm then the corresponding median of the larger triangle is
(1) 12 cm (2) 18 cm (3) 24 cm (4) 10 cm

Sol. **(2)**
If two triangles are similar then the ratio of their area is equal to square of the ratio of their corresponding median.

$$\frac{ar\Delta_1}{ar\Delta_2} = \left(\frac{m_1}{m_2}\right)^2 \Rightarrow \frac{36}{81} = \left(\frac{12}{m_2}\right)^2$$

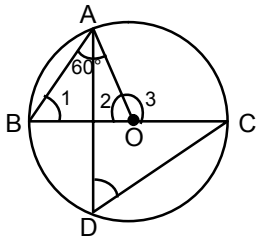
$$\Rightarrow \frac{6}{9} = \frac{12}{m_2} \Rightarrow m_2 = 18$$

57. In the given figure, BC is the diameter of a circle and $\angle BAO = 60°$ then $\angle ADC$ is equal to



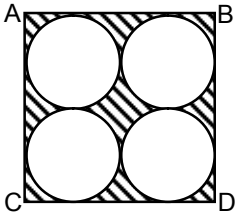
(1) 30° (2) 45° (3) 60° (4) 90°

Sol. **(3)**



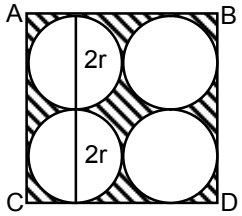
In ΔOAB
OA = OB
$\therefore \angle OAB = \angle 1$
$\therefore \angle 1 = 60°$
$\angle 2 = 60°$
$\angle 2 + \angle 3 = 180°$
$\angle 3 = 120°$
$\angle ADC = \frac{1}{2}\angle 3 = \frac{1}{2} \times 120° = 60°$

58. Find the area of the shaded portion in the figure given below, where ABCD is a square of side 28 cm



(1) 784 cm^2 (2) 616 cm^2 (3) 668 cm^2 (4) 168 cm^2

Sol. **(4)**



2r + 2r = side of square
4r = 28
r = 7
area of shaded portion = area of square – 4(area of circle)
$= (28)^2 - 4\left(\frac{22}{7} \times 7^2\right) = 784 - 616 = 168\ cm^2$

Mean = $\frac{2+3+5+7+11+13+17+19}{8} = \frac{77}{8} = 9.625$

60. A die is thrown once. The probability of getting an even number on the die is

(1) $\frac{1}{6}$ (2) $\frac{1}{3}$ (3) $\frac{1}{2}$ (4) $\frac{2}{3}$

Sol. **(3)**

P(even number) = $\frac{3}{6} = \frac{1}{2}$

HISTORY

61. Who of the following was not the courtier of Kanisnka ?

(1) Charaka (2) Megasthenes (3) Nagarjuna (4) Ashwaghosha

Sol. **(2)**

62. Who was the writer of 'Mudrarakshasa' ?

(1) Kalidasa (2) Vishakhadatta (3) Amar Singh (4) Sudraka

Sol. **(2)**

63. The fourth Buddhist conference was organized during the reign of which ruler ?

(1) Kanishka (2) Rudradaman
(3) Ashoka (4) Chandragupta Maurya

Sol. **(1)**

64. Where is the 'Jantar-Mantar' situated ?

(1) Sikar (2) Ajmer (3) Jaipur (4) Bikaner

Sol. **(3)**

65. Which one of the following incidents happened first ?

(1) Non- Cooperation movement
(2) Quit India movement
(3) Simon Commission
(4) Personal Satyagraha

Sol. **(1)**

66. Which one of the following was not related to the Sikar Peasant Movement ?

(1) Chetram (2) Tulchharam (3) Tikuram (4) Devlal

Sol. **(4)**

67. Match **List – I** with **List- II** and select the correct answer by choosing from the given codes :

	List – I		**List – II**
(A)	Flying Shuttle Loom	(i)	Samuel Crompton
(B)	Spinning Jenny	(ii)	Richard Arkwright
(C)	Water frame	(iii)	James Hargreaves
(D)	Mule	(iv)	John Kay

Codes :

	A	**B**	**C**	**D**
(1)	i	ii	iii	iv
(2)	ii	iv	iii	i
(3)	iv	ii	iii	i
(4)	iv	iii	ii	i

Sol. (4)

68. Which one of the following is not correctly matched ?
(1) Ropar – Punjab (2) Lothal – Haryana
(3) Rangpur – Gujarat (4) Kalibanga – Rajasthan

Sol. (2)

69. Which ruler of Bharatpur is called 'The Plato of the Jat Caste' ?
(1) Rajaram (2) Surajmal (3) Badan Singh (4) Chudaman

Sol. (2)

70. After the end of First World War, Which treaty was made with Germany ?
(1) Treaty of Versailles (2) Treaty of Triyana
(3) Treaty of Newly (4) Treaty of Berlin.

Sol. (1)

71. Who was the publisher of ' Samvad Koumudi' ?
(1) Bal Gangadhar Tilak (2) Raja Rammohan Roy
(3) Dayanand Saraswati (4) Mahatma Gandhi

Sol. (2)

GEOGRAPHY

72. Which Prime Minister of India called multipurpose water projects as "The Temple of Modern India" ?
(1) Pandit Jawaharlal Nehru (2) Rajiv Gandhi
(3) Indira Gandhi (4) Atal Bihari Vajpayee

Sol. (1)

73. Rabi crop is
(1) Rice (2) Gram (3) Maize (4) Soyabean

Sol. (2)

74. Which one of the following is the copper mine situated in Rajasthan ?
(1) Morija-Banol (2) Degana-Bhakri (3) Zawar (4) Khetri-Singhana

Sol. (4)

75. Match **List – I** with **List- II** and select the correct answer by choosing from the given codes :

	List – I		**List – II**
(A)	Durgapur	(i)	Jharkhand
(B)	Rourkela	(ii)	Chattisgarh
(C)	Bhilai	(iii)	Orissa
(D)	Bokaro	(iv)	West Bengal

Codes :

	A	**B**	**C**	**D**
(1)	(iv)	(iii)	(ii)	(i)
(2)	(iv)	(iii)	(i)	(ii)
(3)	(i)	(ii)	(iii)	(iv)
(4)	(ii)	(i)	(iii)	(iv)

Sol. **(1)**

76. Which of the following is the highest population density district of Rajasthan?
(1) Jaipur (2) Bharatpur (3) Alwar (4) Dausa

Sol. **(1)**

77. "New Mangalore" seaport is located in which state of India?
(1) Karnataka (2) Tamil Nadu (3) West Bengal (4) Maharashtra

Sol. **(1)**

78. Which of the following is an atomic energy mineral?
(1) Coal (2) Petroleum (3) Beryllium (4) Natural Gas

Sol. **(3)**

79. Among the following the latitudinal extension of Rajasthan is
(1) 23º3' East Latitude to 30º 12' East Latitude
(2) 23º3' West Latitude to 30º 12' West Latitude
(3) 23º3' North Latitude to 30º 12' North Latitude
(4) 23º3' South Latitude to 30º 12' South Latitude

Sol. **(3)**

80. Which of the following rivers falls in the Arabian Sea?
(1) Tapti (2) Krishna (3) Kaveri (4) Mahanadi

Sol. **(1)**

81. What is 'Mavath?
(1) Rainfall near the Malabar Coast in summer season
(2) Warm winds which blow in Rajasthan in summer season
(3) Rainfall due to Mediterranean cyclones in winter season
(4) Cyclones of the Arabian sea

Sol. **(3)**

82. Which tree is known as 'Kalpa Vriksha' in Rajasthan?
(1) Rohira (2) Kair (3) Bair (4) Khejari

Sol. **(4)**

POLITICAL SCIENCE

83. Among the following who is a supporter of the Pluralistic Theory of Democracy ?
(1) J. S. Mill (2) T. H. Green (3) Hobbes (4) H. J. Laski.

Sol. **(4)**

84. Who decides whether a bill is a money bill or not ?
(1) Prime Minister (2) President (3) Speaker of Lok Sabha (4) Vice-President.

Sol. **(3)**

85. Who has the right to declare a subject of the state list of national importance ?
(1) Rajya Sabha (2) Lok Sabha
(3) State Legislative Assembly (4) State Legislative Council.

Sol. **(1)**

86. At present how many high courts are there in India ?
(1) 22 (2) 24 (3) 26 (4) 29.

Sol. **(2)**

87. Which of the following are included in the State Government ?
(1) Governor, Cabinet, Chief Minister (2) Judiciary, Executive, Chief Minister
(3) State Legislature, Executive, Judiciary (4) Cabinet, State Legislature, Governor.

Sol. **(3)**

88. Under which Article of the Constitution each high court has been established as a court of records ?
(1) Article 215 (2) Article 216 (3) Article 221 (4) Article 222.

Sol. **(1)**

89. Which Fundamental Right is given by the Constitution of India to protect all fundamental rights ?
(1) Right to Liberty (2) Right to Constitutional Remedies
(3) Right against Exploitation (4) Right to Equality,

Sol. **(2)**

90. The highest unit of Panchayati Raj system is
(1) Zilla Parishad (2) Panchayat Samiti (3) Gram Panchayat (4) Gram Sabha.

Sol. **(1)**

91. When was the minimum age of 18 years for Franchise implemented in India ?
(1) 1947 (2) 1955 (3) 1987 (4) 1989.

Sol. **(4)**

92. Which Indian politician played an important role to make Non-alignment as a movement ?
(1) Pandit Jawaharlal Nehru (2) Mahatma Gandhi
(3) Lal Bahadur Shastri (4) Sardar Vallabhbhai Patel.

Sol. **(1)**

93. Match **List-I** with **List-II** and choose the correct code from the given codes :

List-I	**List-II**
(A) Permanent Chairman of the Constituent Assembly	(i) B. N. Rao
(B) Legal Adviser of the Constituent Assembly	(ii) Dr. Rajendra Prasad
(C) Chairman of the Drafting Committee	(iii) Sachchidanand Sinha
(D) Temporary Chairman of the Constituent Assembly	(iv) Dr. Bhim Rao Ambedkar

Codes :

	A	B	C	D
(1)	(i)	(ii)	(iii)	(iv)
(2)	(ii)	(i)	(iv)	(iii)
(3)	(iii)	(iv)	(i)	(ii)
(4)	(iv)	(iii)	(ii)	(i)

Sol. **(2)**

ECONOMICS

94. The nation with a capitalist economy is
(1) Russia (2) China (3) Japan (4) Bulgaria.

Sol. **(3)**

95. The White Revolution is related to
(1) Production of eggs (2) Production of milk
(3) Production of sugar (4) Production of rice.

Sol. **(2)**

96. The institution calculating National Income in India is
(1) Central Statistical Organization (2) Finance Commission
(3) Central Bank (4) NITI Aayog

Sol. **(1)**

97. The World Trade Organization was established on
(1) 1st January, 1935 (2) 1st April, 1935 (3) 1st January, 1995 (4) 1st April, 1995.

Sol. **(3)**

98. The reason of inflation in India is
(1) Rapid growth in agricultural production (2) Rapid growth in industrial production
(3) Low level of public expenditure (4) High level of public expenditure.

Sol. **(4)**

99. The institutional source of credit is
(1) Money lender (2) Self help group (3) Commercial bank (4) Trader.

Sol. **(3)**

100. In India, cases of goods more than one crore of rupees can be filed by the consumer in
(1) Block Forum (2) District Forum
(3) State Commission (4) National Consumer Protection Commission

Sol. **(4)**