

NATIONAL TALENT SEARCH EXAMINATION  
(NTSE-2021) STAGE -1  
STATE : JHARKHAND PAPER : SAT

Date: 13/12/2020

Max. Marks: 100

## SOLUTIONS

Time allowed: 120 mins

### Physics

1. The object distance  $u$ , image distance  $v$  and focal length  $f$  for a spherical mirror are related as

(1)  $\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$

(2)  $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$

(3)  $v - u = f$

(4)  $v + u = f$

Ans. (2)

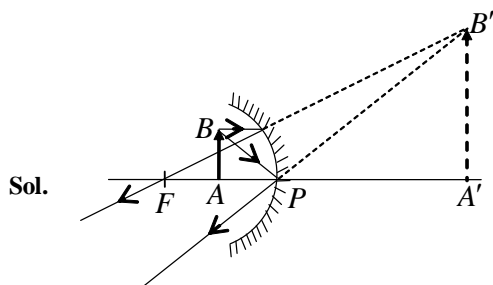
Sol. By mirror formula  $\frac{1}{v} + \frac{1}{u} = \frac{1}{f}$ , where  $u$  = object distance from pole.

$v$  = image distance from pole,  $f$  = focal length

2. The image formed by a concave mirror is observed to be virtual, erect and larger than the object. Where should be the position of the object?

- (1) Between the principal focus and the centre of curvature    (2) At the centre of curvature  
(3) Beyond the centre of curvature    (4) Between the pole of the mirror and its principal focus

Ans. (4)



Correct option 4.

3. The change in focal length of an eye lens is caused by the action of the

- (1) Pupil    (2) Retina    (3) Ciliary muscles    (4) Iris

Ans. (3)

Sol. Ciliary muscles changes curvature of eye lens.

**4.** At the time of short circuit, the current in the circuit

- (1) reduces substantially      (2) does not change      (3) increases heavily      (4) vary continuously

**Ans. (3)**

**Sol.** In short circuit resistance of circuit becomes very low, so current becomes very high. So Correct option is 3.

5. Three resistance of  $4\Omega$ ,  $5\Omega$  and  $20\Omega$  are connected in parallel. Their combined resistance is

- (1)  $2\Omega$ 
(2)  $4\Omega$ 
(3)  $5\Omega$ 
(4)  $29\Omega$

**Ans. (1)**

**Sol.** In parallel combination,  $\frac{1}{R_{eq}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} = \frac{1}{4} + \frac{1}{5} + \frac{1}{20} = \frac{1}{2}$

$$R_{eq} = 2\Omega$$

6. The electrical appliances in the houses are connected with each other in

- (1) parallel (2) series  
(3) a combination of series and parallel circuits (3) none of these

**Ans. (1)**

**Sol.** Household connection is in parallel combination.

7. Electrical power is given by

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

- (1)\*                      (2)\*                      (3)\*                      (4)\*

**Ans. (4)**

**Sol.** Electrical power  $= I^2 R = IV = \frac{V^2}{R}$ .

8. SI unit of magnetic field is

- (1) ampere                      (2) henry                      (3) tesla                      (4) ohm

**Ans. (3)**

**Sol.** Tesla

**9.** The direction of induced current in a circuit is given by

- (1) Fleming's left hand rule    (2) Fleming's right hand rule    (3) Right hand thumb rule    (4) Ampere's swimming rule

**Ans. (2)**

**Sol.** Fleming's right hand rule. According to Fleming's right hand rule

- (i) thumb shows motion    (ii) Fore finger shows magnetic field  
(iii) middle finger gives induced current.

- 10.** No current flows between two charged bodies when connected, if they have same  
(1) capacity (2) potential (3) charge (4) none of these

**Ans.** (2)

**Sol.** When potential of two bodies are same, then no current flows.

- 11.** The magnetic effect of electric current was discovered by  
(1) Faraday (2) Henry (3) Oersted (4) Maxwell

**Ans.** (3)

**Sol.** Oersted

- 12.** The phenomenon of electromagnetic induction is  
(1) the process of charging a body  
(2) the process of generating magnetic field due to a current passing through a coil  
(3) the process of producing induced current in a coil due to relative motion between a magnet and the coil  
(4) the process of rotating a coil of an electric motor

**Ans.** (3)

**Sol.** The phenomenon of electromagnetic induction is the process of producing induced current in a coil due to relative motion between a magnet and the coil.

- 13.** The human eye forms the image of an object at its  
(1) cornea (2) iris (3) pupil (4) retina

**Ans.** (4)

**Sol.** The human eye forms the image of an object at its retina.

### Chemistry

- 14.** What happens when dilute hydrochloric acid is added to iron filings?  
(1) Hydrogen gas and iron chloride are produced (2) Chlorine gas and iron hydroxide are produced  
(3) No reaction takes place (4) \*

**Ans.** (1)

**Sol.**  $2\text{Fe} + 6\text{HCl} \longrightarrow 2\text{FeCl}_3 + 3\text{H}_2$ .

- 15.** In the equation  $\text{CuO} + \text{H}_2 \rightarrow \text{Cu} + \text{H}_2\text{O}$ , the substance reduced is  
(1) CuO (2)  $\text{H}_2$  (3) Cu (4) none of these

**Ans.** (1)

**Sol.** Oxidation state of copper in copper oxide reduced from 2 to 0.

**16.** Select the organic acid from the following :

- (1) Hydrochloric acid      (2) Nitric acid      (3) Sulphuric acid      (4) Citric acid

**Ans.** (4)

**Sol.** Citric acid is derived from plants.

**17.** A solution turns red litmus blue, its pH is likely to be

- (1) 1      (2) 4      (3) 5      (4) 10

**Ans.** (4)

**Sol.** Solution with pH 10 is a basic solution, which turns red litmus blue.

**18.** Tooth enamel contains

- (1) Calcium carbonate      (2) calcium sulphate      (3) calcium chloride      (4) calcium phosphate

**Ans.** (4)

**19.** Which one of the following compounds is not an ionic compound

- (1) Sodium chloride      (2) calcium chloride      (3) carbon tetrachloride      (4) magnesium chloride

**Ans.** (3)

**Sol.** Carbon and chlorine both are non-metals and they are bonded with sharing of electrons that is covalent bond.

**20.** Butanone is a four carbon compound with the functional group

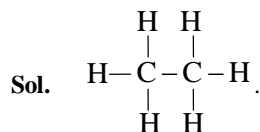
- (1) Carboxylic acid      (2) aldehyde      (3) ketones      (4) alcohol

**Ans.** (3)

**21.** Ethane, with the molecular formula  $C_2H_6$  has

- (1) 6 covalent bond      (2) 7 covalent bond      (3) 8 covalent bonds      (4) 9 covalent bonds

**Ans.** (2)



**22.** Choose the metalloid from the following elements

- (1) Boron      (2) Sodium      (3) Chlorine      (4) Aluminium

**Ans.** (1)

**23.** Na, Mg, Al and S belongs to 3rd period of the periodic table . Out of these acidic oxide is formed by

- (1) Na      (2) Mg      (3) Al      (4) S

**Ans.** (4)

**Sol.** Oxide of non-metals are acidic in nature.

24. Which of the following compounds is used to repair fractured bone?

- (1)  $\text{Na}_2\text{CO}_3$                       (2)  $\text{CaOCl}_2$                       (3)  $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$                       (4)  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

**Ans. (3)**

25. How many groups are there in modern periodic table?

- (1)7                      (2)13                      (3)18                      (4)20

**Ans. (3)**

**26.** Pure gold is

- (1) 18 carat                      (2) 20 carat                      (3) 22 carat                      (4) 24 carat

**Ans. (4)**

## Biology

27. The breakdown of Pyruvate to give carbon dioxide, Water and energy takes place in presence of oxygen in?

- (1) Cytoplasm                      (2) mitochondria                      (3) chloroplast                      (4) nucleus

**Ans. (2)**

**Sol.** Krebs cycle takes place in mitochondria.

28. The gap between two neurons is called

- (1) Dendrite                      (2) Synapse                      (3) axon                      (4) impulse

**Ans. (2)**

**Sol.** Also called as neural junction responsible for transmission of electric nerve impulses between two neurons.

**29.** Rings of cartilage are present in

- (1) Oesophagus                      (2) Bile duct                      (3) Throat                      (4) Small intestine

**Ans. (3)**

**Sol.** Throat leads to windpipe (trachea) and rings of cartilage prevent it from collapsing.

30. The xylem in plants are responsible for

- (1) Transport of water
- (2) Transport of food
- (3) Transport of amino acids
- (4) Transport of oxygen

**Ans. (1)**

**Sol.** It is transporting unit responsible for transport of water and minerals and is part of plant vascular system.

**31.** Which plant hormone causes bending of shoot towards light?

- (1) Auxins                      (2) Gibberellin                      (3) Cytokinin                      (4) Absciscic acid

**Ans. (1)**

**Sol.** Auxin accumulates at darker side of stem and initiates repeated cell division resulting in bending of stem.

32. Which of the following plant hormones causes wilting of leaves

- (1) Gibberellin                      (2) Cytokinin                      (3) Auxin                      (4) Absciscic acid

**Ans.** (4)

**Sol.** Absciscic acid inhibits the plant growth so also known as growth Inhibiting hormone and wilting is an example of growth inhibition.

33. Human growth hormone is produced in

- (1) Thyroid                      (2) adrenal                      (3) pancreas                      (4) Pituitary

**Ans.** (4)

**Sol.** Pituitary secretes human growth hormone which is responsible for growth of the body.

34. Insulin is produced by

- (1) Pituitary                      (2) pancreas                      (3) Thyroid                      (4) adrenal

**Ans.** (2)

**Sol.** Insulin is synthesised and secreted by pancreas and is responsible for regulation(decrease) of blood sugar.

35. The example of unisexual flower is

- (1) Hibiscus                      (2) Mustard                      (3) Papaya                      (4) None of these

**Ans.** (3)

**Sol.** Unisexual flower is type of flower in which either stamen or carpel are present in a single unit.

36. The transfer of pollen grains from anther to stigma is termed as

- (1) Fertilisation                      (2) Pollination                      (3) Ovulation                      (4) Double fertilisation

**Ans.** (2)

37. Fat is digested by the enzyme

- (1) Amylase                      (2) Pepsin                      (3) Trypsin                      (4) Lipase

**Ans.** (4)

**Sol.** Lipase is an enzyme which is mainly involved in catalysis of fat.

38. Genetic material is carried out by long chain of molecules made up of

- (1) Enzymes                      (2) DNA                      (3) Amino acids                      (4) Protein

**Ans.** (2)

**Sol.** DNA is a chain which is made up of nucleotide which is composed of nitrogen base, pentose sugar and phosphate group and having 2 bonds that is hydrogen bond and phosphodiester bond.

39. Who proposed the law of inheritance

- (1) Darwin                      (2) Mendel                      (3) Lamarck                      (4) Morgan

**Ans.** (2)

40. Changes in the non-reproductive tissues caused by environmental factors

- (1) Are inheritable      (2) Are not inheritable      (3) Both 1 and 2      (4) None of these

Ans. (2)

Sol. Any changes caused in body due to environmental factor cannot be inherited until they make changes in the genetic material of that person.

**Mathematics**

41. In a mixture the ratio of milk and water is 3 : 2. If there is 5 litre milk more than water the quantity of milk in the mixture is

- (1) 10 litre      (2) 15 litre      (3) 20 litre      (4) 25 litre

Ans. (2)

Sol. Let water =  $2x$  and milk =  $3x$ .

$$\therefore 3x = 2x + 5 \Rightarrow x = 5.$$

Milk = 15 lit.

42. In  $x = 2, y = 3$  is a solution of a pair of lines  $2x - 3y + a = 0$  and  $2x + 3y - b + 2 = 0$  then

- (1)  $a = 3b$       (2)  $a + 3b = 0$       (3)  $3a + b = 0$       (4)  $3a = b$

Ans. (4)

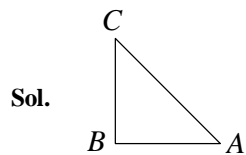
Sol.  $2 \times 2 - 3 \times 3 + a = 0 \therefore a = 5$

$$2 \times 2 + 3 \times 3 - b + 2 = 0 \Rightarrow b = 15 \therefore b = 3a.$$

43. In a right triangle  $ABC$ ,  $AB = 6\sqrt{3}$  cm,  $BC = 6$  cm and  $AC = 12$  cm.  $\angle A$  is given by

- (1)  $90^\circ$       (2)  $45^\circ$       (3)  $30^\circ$       (4)  $60^\circ$

Ans. (3)



$$\tan A = \frac{6}{6\sqrt{3}} = \frac{1}{\sqrt{3}} \therefore A = 30^\circ$$

**44.** D and E are the mid-points of the sides AB and AC of  $\Delta ABC$ . If DE measures 3 cm, then the side BC measures

- (1) 6 cm                      (2) 7 cm                      (3) 8 cm                      (4) 9 cm

**Ans.** (1)

**Sol.** The line joining mid-point of any two side of triangle is parallel and half of third side.

$$\therefore BC = 2 \times DE = 6 \text{ cm.}$$

**45.** The mean and median of a data are respectively 20 and 22. The value of mode is

- (1) 20                      (2) 26                      (3) 22                      (4) 21

**Ans.** (2)

**Sol.** Mode = 3 median – 2 mean = 26

**46.** The tenth term from the end of the A.P. 4, 9, 14, ....., 254 is

- (1) 214                      (2) 209                      (3) 208                      (4) 204

**Ans.** (2)

**Sol.** 10th term from last =  $l + (n - 1)d = 254 + (10 - 1)(-5) = 209$ .

**47.** Two vertices of a triangle are  $(3, 5)$  and  $(-4, -5)$ . If the centroid of the triangle is  $(4, 3)$ , find the third vertex.

- (1)  $(13, 9)$                       (2)  $(9, 13)$                       (3)  $(13, -9)$                       (4)  $(-9, -13)$

**Ans.** (1)

**Sol.** Let 3rd vertex =  $(x, y)$ ,  $\Rightarrow$  centroid =  $\left( \frac{x + 3 + (-4)}{3}, \frac{y + 5 + (-5)}{3} \right) = (4, 3)$

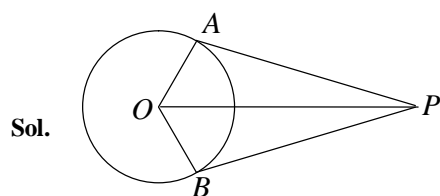
$$\therefore \text{3rd Vertex} = (13, 9)$$



48. If tangents PA and PB from a point P to a circle with centre O are inclined to each other at an angle of  $100^\circ$ , then  $\angle POA$  is equal to :

(1)  $20^\circ$  (2)  $30^\circ$  (3)  $40^\circ$  (4)  $50^\circ$

Ans. (3)

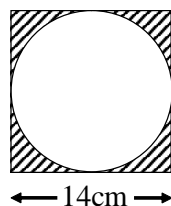


Since tangents are equally inclined to the line joining external point to center.

$$\therefore \angle OPA = \angle OPB = 50^\circ$$

$$\text{In } \triangle OPA, \angle OAP + \angle OPA + \angle POA = 180^\circ \Rightarrow \angle POA = 40^\circ$$

49. A square is circumscribing a circle. The side of the square is 14 cm. Find the area of the square not included in the circle.



(1)  $21 \text{ cm}^2$  (2)  $42 \text{ cm}^2$  (3)  $48 \text{ cm}^2$  (4)  $196 \text{ cm}^2$

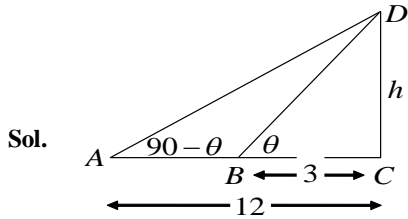
Ans. (2)

Sol. Required area = area of square – area of circle =  $14^2 - \pi (7)^2 = 42 \text{ cm}^2$

50. If the angles of elevation of the top of a tower from two points at the distances of 3m and 12m from the base of the tower in the same straight line with it are complementary, then the height of the tower (in m) is

(1) 36 (2) 60 (3) 6 (4) 100

Ans. (3)



$$\text{In } \triangle ACD, \tan(90 - \theta) = \frac{h}{12} \Rightarrow \cot \theta = \frac{h}{12} \quad \dots(i)$$

$$\text{In } \triangle BCD, \tan \theta = \frac{h}{3} \quad \dots(ii)$$

$$\text{Multiply (i) \& (ii), we get } \cot \theta \tan \theta = \frac{h}{12} \times \frac{h}{3} \Rightarrow h = 6 \text{ m}$$

51. The surface areas of two spheres are in the ratio 1 : 4. Then, the ratio of their volumes is

(1) 1 : 4 (2) 1 : 8 (3) 1 : 16 (4) 1 : 64

Ans. (2)

Sol.  $\frac{4\pi R^2}{4\pi r^2} = \frac{1}{4} \Rightarrow \frac{R}{r} = \frac{1}{2}$

$$\text{ratio of volume, } \frac{\frac{4}{3}\pi R^3}{\frac{4}{3}\pi r^3} = \left(\frac{R}{r}\right)^3 = \left(\frac{1}{2}\right)^3 = \frac{1}{8}$$

52. The slant height of a bucket is 26 cm. The diameter of upper and lower circular ends are 36 cm and 16 cm. The height of the bucket is

(1) 22 cm (2) 24 cm (3) 10 cm (4) 25 cm

Ans. (2)

Sol.  $l = \sqrt{(r_1 - r_2)^2 + h^2} \Rightarrow 26^2 = 100 + h^2 \Rightarrow h = 24 \text{ cm.}$

53. Half of which number is 18 more than its one fifth  $\left(\frac{1}{5}^{th}\right)$ ?

(1) 48

(2) 52

(3) 60

(4) 64

Ans. (3)

Sol.  $\frac{x}{2} - \frac{x}{5} = 18 \Rightarrow x = 60$

54. Sum of two numbers is 25 and their product is 154. The greater number is

(1) 11

(2) 12

(3) 13

(4) 14

Ans. (4)

Sol. Let number are  $x$ ,  $25 - x$

$x(25 - x) = 154 \Rightarrow x = 14, 11$ . Hence greatest number is 14.

55. If A and B together can complete a work in 12 days and B and C can complete it in 15 days and C and A can complete in 20 days, then in how many days can A alone complete the said work?

(1) 20 days

(2) 30 days

(3) 40 days

(4) 60 days

Ans. (2)

$$A + B \longrightarrow 1D \xrightarrow{0} \frac{1}{12} \text{ work}$$

$$B + C \longrightarrow 1D \xrightarrow{0} \frac{1}{15} \text{ work}$$

Sol.

$$C + A \longrightarrow 1D \xrightarrow{0} \frac{1}{20} \text{ work}$$

$$\therefore A + B + C \longrightarrow 1D \longrightarrow \frac{1}{10} \text{ work}$$

$$A \longrightarrow 1D \longrightarrow \frac{1}{10} - \frac{1}{15} = \frac{1}{30} \text{ work}$$

Hence, A complete the work in 30 day

**56.** The diagonals of a rhombus are 15m and 20m long. Find its area

- (1)  $150\text{ m}^2$                       (2)  $300\text{ m}^2$                       (3)  $450\text{ m}^2$                       (4) None of these

**Ans.** (1)

**Sol.**  $\text{Area} = \frac{1}{2} \times 15 \times 20 = 150\text{ m}^2$

**57.** The wall around a semicircular garden is 180 m long. The area of the garden is

- (1)  $1800\text{ m}^2$                       (2)  $1900\text{ m}^2$                       (3)  $1925\text{ m}^2$                       (4)  $1825\text{ m}^2$

**Ans.** (3)

**Sol.**  $\pi r + 2r = 180\text{ m} \Rightarrow r = \frac{180}{\pi + 2} = 35\text{ m}$

$$\therefore \frac{\pi r^2}{2} = 1925\text{ m}^2.$$

**58.** If the measure of each interior angle of a regular polygon is  $135^\circ$ , then the number of its sides is

- (1) 5                      (2) 6                      (3) 7                      (4) 8

**Ans.** (4)

**Sol.**  $\frac{(n-2) \times 180^\circ}{n} = 135^\circ \Rightarrow n = 8$

**59.** The lengths of parallel sides of a trapezium are 60 m and 80 m respectively. If the distance of its parallel sides is 20 m, find the area of the trapezium.

- (1)  $1200\text{ m}^2$                       (2)  $1400\text{ m}^2$                       (3)  $1800\text{ m}^2$                       (4)  $2400\text{ m}^2$

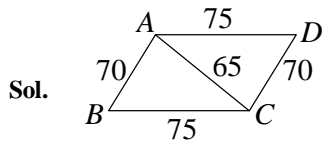
**Ans.** (2)

**Sol.**  $\text{Area} = \frac{1}{2} (60 + 80) \times 20 = 1400\text{ m}^2$

**60.** Find the area of a parallelogram of which a diagonal measures 65 cm and of which two adjacent sides measure 70 cm and 75 cm respectively?

- (1)  $4000 \text{ cm}^2$                       (2)  $4200 \text{ cm}^2$                       (3)  $4800 \text{ cm}^2$                       (4) None of these

**Ans.** (2)



In  $\Delta ABC$ ,  $S = 105 \therefore \text{area} = \sqrt{105 \times 30 \times 40 \times 35} = 2100 \text{ cm}^2$

$\therefore \text{area of parallelogram} = 2 \times \text{area } \Delta ABC = 4200 \text{ cm}^2$ .

### Social Science

**61.** Which treaty recognised Greece as an independent nation?

- (1) Treaty of Vsailles                      (2) Treaty of Vienna  
(3) Treaty of Constantinople                      (4) Treaty of Lausanne

**Ans.** (3)

**Sol.** Reason: The Treaty of Constantinople of 1832 recognised Greece as an independent nation

**62.** Which of the following societies was founded by Giuseppe Mazzini?

- (1) Carbonari                      (2) Young Italy                      (3) Young Europe                      (4) Jacobin Club

**Ans.** (2, 3)

**Sol.** Reason: He subsequently founded two more underground societies, first, Young Italy in Marseilles, and then, Young Europe in Berne

**63.** When did Ho Chi Minh form vietnamese Communist Party?

- (1) 1903                      (2) 1931                      (3) 1932                      (4) 1934

**Ans.** (1)

**Sol.** Reason: In February 1930, Ho Chi Minh brought together competing nationalist groups to establish the Vietnamese Communist (Vietnam Cong San Dang) Party later renamed the Indo- Chinese Communist Party.

**64.** In which famous battle were the French defeated?

- (1) Nghe An                      (2) Dien Bien Phu                      (3) Ha Tinh                      (4) Phan Boi

**Ans.** (2)

**65.** The resolution of 'Poorna Swaraj' was adopted at which Congress session?

- (1) Karachi                      (2) Lucknow                      (3) Lahore                      (4) Haripur

**Ans.** (3)

**66.** In which year did the “Great Depression” start?

- (1) 1928 (2) 1936 (3) 1929 (4) 1981

**Ans.** (3)

**67.** IMF stands for

- (1) Inland Maintenance Force (2) International Military Force  
(3) International Monetary Fund (4) Indian Monetary Factor

**Ans.** (3)

**68.** The first printing press was developed by

- (1) Marco Polo (2) Kitagawa Utamaro (3) Johannes Gutenberg (4) Erasmus

**Ans.** (3)

**Sol.** Reason: By 1448, Gutenberg perfected the system. The first book he printed was the Bible. About 180 copies were printed and it took three years to produce them.

**69.** Who among the following was the leader of dalits?

- (1) Dr. B.R. Ambedkar (2) Jyotiba Phule (3) Mahatma Gandhi (4) Sitaram Raju

**Ans.** (1)

**70.** Ravi Verma was a

- (1) Painter (2) Calligraphist (3) Scientist (4) Colonist

**Ans.** (1)

**71.** Which of the following novels was too moralising?

- (1) Chandrakanta (2) Pariksha Guru (3) Padmarag (4) Indulekha

**Ans.** (2)

**Sol.** Reason: Pariksha Guru could not win many readers, as it was perhaps too moralising in its style.

**72.** Which European power first acquired control over Bombay?

- (1) Dutch (2) English (3) French (4) Portuguese

**Ans.** (4)

**Sol.** Reason: In the seventeenth century, Bombay was a group of seven islands under Portuguese control.

**73.** Who among the following was known as ‘Frontier Gandhi’?

- (1) Mahatma Gandhi (2) Jawaharlal Nehru (3) Abdul Gaffar Khan (4) Bhagat Singh

**Ans.** (3)

**74.** Which of the following did not take part in World War I?

- (1) England (2) Spain (3) Germany (4) France

**Ans.** (2)

**75.** Who among the following set up the first jute Mill in Calcutta?

- (1) Dinshaw Petit (2) J N Tata (3) Seth Hukumchand (4) Dwarkanath Tagore

**Ans.** (3)

**Sol.** Reason: Seth Hukumchand, a Marwari businessman who set up the first Indian jute mill in Calcutta in 1917

**76.** What percent area of the whole country does plain occupy?

- (1) 27% (2) 43% (3) 30% (4) 50%

**Ans.** (2)

**77.** Which one of the following is the main cause of land degradation in Punjab?

- (1) Intensive cultivation (2) Over-irrigation (3) Deforestation (4) Overgrazing

**Ans.** (2)

**78.** Regions of ..... soils are intensively cultivated and densely populated

- (1) black (2) red and yellow (3) laterite (4) alluvial

**Ans.** (4)

**79.** Cropping season from November to May is called

- (1) Kharif (2) Rabi (3) Zaid (4) None of these

**Ans.** (2)

**80.** "Temples of Modern India" was the name given to dams by

- (1) Pt Jawaharlal Nehru (2) Mahatma Gandhi (3) Rabindranath Tagore (4) Subhas Chandra Bose

**Ans.** (1)

**Sol.** Reason: Jawaharlal Nehru proudly proclaimed the dams as the 'temples of modern India'

**81.** Which one of the following describes a system of agriculture where a single crop is grown on a large area ?

- (1) Shifting Agriculture (2) Horticulture (3) Plantation Agriculture (4) Intensive Agriculture

**Ans.** (3)

**82.** Limestone is found in which rocks?

- (1) Igneous (2) Sedimentary (3) Metamorphic (4) None of these

**Ans.** (2)

**83.** Which agency markets steel for the public sector plants

- (1) HAIL (2) TATA Steel (3) SAIL (4) MNCC

**Ans.** (3)

**84.** Which one of the following countries import iron ore from India?

- (1) USA (2) Japan (3) Russia (4) China

**Ans.** (2)

**Sol.** Reason: Iron ore from Bailadila range in the Bastardistrict of Chhattisgarh is exported to Japan & South Korea Via Vishakhapatnam port.

**85.** Which mode of transportation reduces transshipment losses and delays?

- (1) Railways (2) Roadways (3) Pipelines (4) Waterways

**Ans.** (3)

- 86.** Which movement has successfully resisted deforestation in Himalayas?  
 (1) Beej Bachao Andolan (2) Chipko Movement (3) Navdanya (4) Joint Forest Management  
**Ans.** (2)
- Sol.** Reason: The **Chipko movement** or **ChipkoAndolan**, was a forest **conservation movement** in **India**. It began in 1973 in Uttarakhand, then a part of Uttar Pradesh (at the foothills of Himalayas) it was SunderlalBahuguna, a Gandhian activist, who gave the movement a proper direction
- 87.** The habitat of Lions in India is  
 (1) Gir forest (2) Simlipal (3) Ranthambhor (4) None of these  
**Ans.** (1)
- 88.** The first Earth Summit was held at  
 (1) Montreal (2) Rio-de-Janeiro (3) New York (4) London  
**Ans.** (2)
- 89.** Which one of the following is a kharif crop?  
 (1) Paddy (2) Wheat (3) Watermelon (4) Gram  
**Ans.** (1)
- 90.** The place of India in respect of wheat cultivation is  
 (1) second (2) third (3) fourth (4) fifth  
**Ans.** (1)
- 91.** The present structure of Panchayati Raj is based on the Constitutional Amendment Act  
 (1) 65th (2) 73rd (3) 74th (4) 76th  
**Ans.** (2)
- 92.** A person who does not discriminate others on the basis of religious beliefs, is  
 (1) Feminist (2) Communist (3) Casteist (4) secularist  
**Ans.** (4)
- 93.** The best form of government for promoting dignity and freedom of the individual is  
 (1) Democracy (2) Dictatorship (3) Army Rule (4) None of these  
**Ans.** (1)
- 94.** Number of Lok Sabha Members from Jharkhand is  
 (1) 12 (2) 13 (3) 14 (4) 15  
**Ans.** (3)
- 95.** The Chairperson of a Municipal Corporation is  
 (1) Deputy Commissioner (2) sarpanch (3) Mayor (4) M L A of the area  
**Ans.** (3)
- 96.** Which is considered to be one of the most important attributes for comparing the development of countries ?  
 (1) Health and Education (2) Infrastructure (3) Per capita income (4) Growth of technology  
**Ans.** (3)



**97.** Which sector of the Indian Economy has grown the most over thirty years?

- (1) Primary sector                      (2) Secondary sector                      (3) Tertiary sector                      (4) None of these

**Ans. (3)**

**98.** Reserve Bank of India grants loan to

- (1) General public                      (2) Private companies                      (3) Commercial banks                      (4) All of these

**Ans. (3)**

99. Human Development Reportis published by

- (1) UNDP (2) World Bank  
(3) Government of the country (4) Central bank of the country

**Ans. (1)**

**100.** In which of the following years, was Consumer Protection Act passed?

- (1) 1989                  (2) 1980                  (3) 1985                  (4) 1986

**Ans. (4)**

**Sol.** (2) Treaty of Vienna

- (3) Treaty of Constantinople (1878) (4) Treaty of Lausanne (1923)

**Ans. (3)**

**Sol.** Reason: The Treaty of Constantinople of 1832 recognised Greece as an independent nation