

# **GENERAL ABILITY TEST**

QUESTION PAPER

#### Time : 1hr 40mins

#### Total Marks: 400

## **Important Instructions :**

- **1.** This Test contains 100 items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case, you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
- 2. You have to mark all your responses ONLY on the separate Answer Sheet provided.
- 3. All items carry equal marks.
- **4.** Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions.
- 5. Penalty for wrong answers :
  - THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
    - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.
  - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

**Directions:** (Q. 1–6) The following six (6) items consist of two statements, Stat ement I and Statement II. Examine these two statements carefully and select the correct answer using the code given below.

## Code :

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I.
- (b) Both the statements are individually true but Statement II is not the correct explanation of Statement I.
- (c) Statement I is true but Statements II is false.
- (d) Statement I is false but Statement II is true.
- **1. Statement I** : The pitch of a sound wave depends upon its frequency.
  - **Statement II :** The loudness of a sound wave depends upon its amplitude.
- 2. Statement I : Sound waves cannot propagate in vacuum.
  - **Statement II :** Sound waves are elastic waves and require a medium to propagate.
- **3. Statement I** : The Government of India Act, 1935 introduced Dyarchy at the Centre.

**Statement II :** The provincial autonomy was granted to the Provinces.

- Statement I : Mughal Painting reached its climax during the reign of Jahangir.
  - **Statement II :** Aurangzeb's Court was adorned by some of the best known artists of the Mughal School of Painting.
- **5. Statement I** : Phytoplankton produce most of the organic carbon in the ocean.
  - **Statement II :** Algae are produced in the cold water biome.
- 6. Statement I : Geostrophic wind blows above a height of 600 metres, parallel to the isobars.
  - **Statement II :** Geostrophic wind is the horizontal wind velocity, in which the Coriolis force balances the horizontal pressure force.
- **7.** Which one of the following groups of cellular organelles contains DNA?
  - (a) Mitochondria, nucleus, chloroplast
  - (b) Mitochondria, golgi bodies, nucleus
  - (c) Mitochondria, plasma membrane, nucleus
  - (d) Chloroplast, nucleus, ribosomes

#### Oswaal NDA/NA YEAR-WISE SOLVED PAPERS

- 8. One of the additional functions of Smooth Endoplasmic Reticulum (SER) is
  - (a) protein synthesis
  - (b) lipid synthesis
  - (c) storage of biomolecules
  - (d) detoxification of toxic substances
- **9.** Damage to the apical meristem of a growing young plant will affect the
  - (a) length of the plant
  - (b) colour of the flower
  - (c) colour of the leaves
  - (d) taste of the fruits
- **10.** Which of the following kingdoms has/have only unicellular organisms?
  - (a) Monera only
  - (b) Protista only
  - (c) Monera and Protista both
  - (d) Protista and Fungi both
- **11.** Which one of the following is a waterborne disease?

| (a) Jaundice | (b) Tuberculosis |
|--------------|------------------|
| (c) Rabies   | (d) Arthritis    |

**12.** The atomic number of an element is 8. How many electrons will it gain to form a compound with sodium?

| (a) One   | <b>(b)</b> Two    |
|-----------|-------------------|
| (c) Three | ( <b>d</b> ) Four |

**13.** A sample of oxygen contains two isotopes of oxygen with masses 16 u and 18 u respectively. The proportion of these isotopes in the sample is 3 : 1. What will be the average atomic mass of oxygen in this sample?

| (a) 17.5 u | <b>(b)</b> 17 u   |
|------------|-------------------|
| (c) 16 u   | <b>(d)</b> 16.5 u |

**14.** Which one of the following is a heterogeneous mixture?

| (a) myarochioric acia (b) vineg | (a) |
|---------------------------------|-----|
|---------------------------------|-----|

(c) Milk (d) Soda water

**15.** What is the formula mass of anhydrous sodium carbonate? (Given that the atomic masses of sodium, carbon and oxygen are 23 u, 12 u and 16 *u* respectively)

| (a) 286 u | <b>(b)</b> 106 u |
|-----------|------------------|
| (c) 83 u  | <b>(d)</b> 53 u  |

16. Which one of the following is called 'syngas'?

(a)  $C(s) + H_2O(g)$  (b)  $CO(g) + H_2O(g)$ (c)  $CO(g) + H_2(g)$  (d)  $NO_2(g) + H_2(g)$ 

- **17.** The frequency of ultrasound waves is
  - (a) less than 20 Hz
  - (b) between 20 Hz and 2 kHz
  - (c) between 2 kHz and 20 kHz
  - (d) greater than 20 kHz
- **18.** The magnetic field strength of a currentcarrying wire at a particular distance from the axis of the wire
  - (a) depends upon the current in the wire
  - (b) depends upon the radius of the wire
  - (c) depends upon the temperature of the surroundings
  - (d) None of the above
- **19.** A stainless steel chamber contains Ar gas at temperature T and pressure P. The total number of Ar atoms in the chamber is n. Now Ar gas in the chamber is replaced by CO<sub>2</sub> gas and the

total number of CO<sub>2</sub> atoms in the chamber is  $\frac{n}{2}$ 

at the same temperature T. The pressure in the chamber now is P'. Which one of the following relations holds true? (Both the gases behave as ideal gases)

(a) 
$$P' = P$$
  
(b)  $P' = 2P$   
(c)  $P' = \frac{P}{2}$   
(d)  $P' = \frac{P}{4}$ 

- **20.** Which one of the following is the correct relation between A° and nm?
  - (a)  $1 \text{ nm} = 10^{-1} \text{ A}^{\circ}$  (b)  $1 \text{ nm} = 10 \text{ A}^{\circ}$ (c)  $1 \text{ nm} = 1 \text{ A}^{\circ}$  (d)  $1 \text{ nm} = 10^{-2} \text{ A}^{\circ}$
- **21.** The full form of LED is
  - (a) Light Emitting Diode
  - (b) Light Emitting Device
  - (c) Light Enhancing Device
  - (d) Light Enhancing Diode
- **22.** If a free electron moves through a potential difference of 1 kV, then the energy gained by the electron is given by
  - (a)  $1.6 \times 10^{-19}$  J
  - (b)  $1.6 \times 10^{-16}$  J
  - (c)  $1 \times 10^{-19}$  J
  - (d)  $1 \times 10^{-16}$  J
- 23. Consider the following places of India:
  - (1) Itanagar
  - (2) Imphal
  - (3) Agartala
  - (4) Aizawl

Which one of the following is the correct chronological order of the above places in terms of sunrise time?

| (a) 3-2-1-4 | <b>(b)</b> 2-1-4-3 |
|-------------|--------------------|
| () 1 1 0 0  |                    |

| (c) 1-4-3-2 | ( <b>d</b> ) 4-3-2-1 |
|-------------|----------------------|
|-------------|----------------------|

**24.** Which one of the following is known as uplands of delta region?

| (a) Bef | (b) Bils |
|---------|----------|
|---------|----------|

| (c) Peh | (d) Chars |
|---------|-----------|
|---------|-----------|

- **25.** Consider the following Wildlife Sanctuaries of India:
  - (1) Shikari Devi (2) Bhadra

(3) Simlipal (4) Pachmarhi

Which one of the following is the correct order of the above Wildlife Sanctuaries in terms of their location from south to north?

(a) 1-2-3-4 (b) 2-4-3-1

(c) 2-3-4-1 (d) 3-1-2-4

- **26.** Which one of the following statements about temperature is correct?
  - (a) Temperature decreases with height in the stratosphere.
  - **(b)** Temperature is constant at different height in the stratosphere.
  - (c) Temperature increases with height in the troposphere at an average rate of 6.5°C per kilometre.
  - (d) Temperature decreases with height in the troposphere at an average rate of 6.4°C per kilometre.
- **27.** Which one of the following is known as a zone of sharp salinity change in the vertical section of ocean?

| (a) Thermocline | (b) Halocline |
|-----------------|---------------|
|                 |               |

(c) Photic zone (d) Pycnocline

- **28.** Permanent hardness of water **cannot** be removed by which one of the following methods?
  - (a) Treatment with washing soda
  - (b) Calgon's method
  - (c) Boiling
  - (d) Ion exchange method
- 29. Which one of the following reactions will give NO (nitric oxide) gas as one of the products?
  (a) 3Cu + 8HNO<sub>3</sub> (dilute) →
  - (b)  $Cu + 4HNO_3$  (conc.)  $\rightarrow$
  - (c)  $4Zn + 10HNO_3$  (dilute)  $\rightarrow$
  - (d)  $Zn + 4HNO_3$  (conc.)  $\rightarrow$

- **30.** Which one of the following is a tribasic acid?
  - (a) Hydrochloric acid
  - (b) Nitric acid
  - (c) Sulphuric acid
  - (d) Phosphoric acid
- **31.** Which one of the following statements is **not** correct?
  - (a) All carbons in diamond are linked by carbon-carbon single bond.
  - (b) Graphite is layered structure in which layers are held together by weak van der Waals forces.
  - (c) Graphite layers are formed by hexagonal rings of carbon atoms.
  - (d) Graphite layers are held together by carboncarbon single bond.
- **32.** Which one of the following is called dry ice?
  - (a) Solid carbon dioxide
  - (b) Liquid carbon dioxide
  - (c) Liquid nitrogen
  - (d) Liquid ammonia
- **33.** The acidic semi digested food coming out of the stomach is neutralized by
  - (a) pancreatic juice
  - (b) duodenal secretion
  - (c) large intestine secretion
  - (d) bile juice
- **34.** The oxygenated blood from the lungs is received by the
  - (a) left auricle (b) left ventricle
  - (c) right auricle (d) right ventricle
- **35.** The oxygen evolved during photosynthesis comes from splitting of
  - (a) water (b) carbon dioxide
  - (c) oxygen (d) light
- **36.** Which one of the following depcits the correct circuit of a reflex arc?
  - (a) Effector-sensory neuron-spinal cord-motor neuron-receptor.
  - (b) Receptor-sensory neuron-spinal cord-motor neuron-effector.
  - (c) Receptor-sensory neuron-brain-motor neuron-effector.
  - (d) Sensory neuron-receptor-brain-effectormotor neuron.
- **37.** If one set of chromosomes for a given plant is represented as N; in case of double fertilization, the zygote and the endosperm nucleus of a

diploid plant would have how many sets of chromosomes respectively?

| (a) N and 2N | <b>(b)</b> 2N and 2N |
|--------------|----------------------|
|--------------|----------------------|

(c) N and 3N (d) 2N and 3N

**38.** Consider the following circuit :



Which one of the following is the value of the resistance between points A and B in the circuit given above?

(a) 
$$\frac{2}{5}$$
 R (b)  $\frac{3}{5}$  R  
(c)  $\frac{3}{2}$  R (d) 4R

**39.** The absolute zero temperature is 0 Kelvin. In °C unit, which one of the following is the absolute zero temperature?

(a)  $0 ^{\circ}C$  (b)  $-100 ^{\circ}C$ (c)  $-273.15 ^{\circ}C$  (d)  $-173.15 ^{\circ}C$ 

- **40.** Consider the following statements about visible light, UV light and X-rays:
  - (1) The wavelength of visible light is more than that of X-rays.
  - (2) The energy of X-ray photons is higher than that of UV light photons.
  - (3) The energy of UV light photons is less than that of visible light photons.

Which of the statements given above is/are correct?

| (a) 1, 2 and 3   | <b>(b)</b> 1 and 2 only |
|------------------|-------------------------|
| (c) 2 and 3 only | ( <b>d</b> ) 1 only     |

41. The time period of oscillation of a simple pendulum having length L and mass of the bob *m* is given as T. If the length of the pendulum is increased to 4L and the mass of the bob is increased to 2*m*, then which one of the following is the new time period of oscillation?(a) T(b) 2T

(c) 4T (d) 
$$\frac{T}{2}$$

**42.** The connecting cable of electrical appliances like electric iron, water heater or room heater contains three insulated copper wires of three

different colours-red, green and black. Which one of the following is the correct colour code?

- (a) Red–live wire, Green-neutral wire, Black– ground wire
- (b) Red–neutral wire, Green–ground wire, Black-live wire
- (c) Red–live wire, Green–ground wire, Black– neutral wire
- (d) Red–ground wire, Green-live wire, Black– neutral wire
- **43.** The graphs between current (I) and voltage (V) for three linear resistors 1, 2 and 3 are given below:



If  $R_1$ ,  $R_2$  and  $R_3$  are the resistances of these resistors, then which one of the following is correct?

(a) 
$$R_1 > R_2 > R_3$$
 (b)  $R_1 < R_3 < R_2$   
(c)  $R_3 < R_1 < R_2$  (d)  $R_3 > R_2 > R_1$ 

- **44.** Consider the following statements about a microscope and a telescope :
  - (1) Both the eyepiece and the objective of microscope are convex lenses.
  - (2) The focal length of the objective of a telescope is larger than the focal length of its eyepiece.
  - (3) The magnification of a telescope increases with the increase in focal length of its objective.
  - (4) The magnification of a microscope increases with the increase in focal length of its objective.

Which of the statements given above are correct?

(a) 1 and 3 only (b) 1 and 4

(c) 2, 3 and 4 (d) 1, 2 and 3

**45.** A planet has a mass  $M_1$  and radius  $R_1$ . The value of acceleration due to gravity on its surface is  $g_1$ . There is another planet 2, whose mass and

radius both are two times that of the first planet. Which one of the following is the acceleration due to gravity on the surface of planet 2?

| <b>(a)</b> <i>g</i> <sub>1</sub> | <b>(b)</b> 2 <i>g</i> <sub>1</sub> |
|----------------------------------|------------------------------------|
| (c) $\frac{g_1}{2}$              | (d) $\frac{g_1}{4}$                |

**46.** Match List-I with List-II and select the correct answer using the code given below the Lists :

|               | List  | -I     |   |    | List-II          |
|---------------|-------|--------|---|----|------------------|
| (Rit          | ver B | Basin) |   |    | (Town)           |
| A. Bhagirathi |       |        | i | (1 | ) Lansdowne      |
| <b>B.</b>     | Alał  | knanda | a | (2 | ) Narendra Nagar |
| C.            | Nay   | ar     |   | (3 | ) Uttarkashi     |
| D.            | Gan   | iga    |   | (4 | ) Pauri          |
| Coo           | de:   |        |   |    |                  |
|               | Α     | В      | С | D  |                  |
| (a)           | 3     | 1      | 4 | 2  |                  |
| (b)           | 3     | 4      | 1 | 2  |                  |
| (c)           | 2     | 4      | 1 | 3  |                  |
| (d)           | 2     | 1      | 4 | 3  |                  |

**47.** Match List-I with List-II and select the correct answer using the code given below the Lists :

|           | List-I  |     |       |        | Lis          | t-II    |    |   |
|-----------|---------|-----|-------|--------|--------------|---------|----|---|
| (Lo       | cal Wi  | nd) |       |        | (Pla         | ice)    |    |   |
| А.        | Yamo    | )   |       | (1     | l) Sı        | ıdan    |    |   |
| B.        | Black   | Rol | ler   | (2     | 2) Fr        | ance    |    |   |
| C.        | C. Bise |     |       | (3     | <b>3)</b> Ja | pan     |    |   |
| D. Haboob |         |     | (4    | I) N   | orth An      | neri    | ca |   |
| Со        | de:     |     |       |        |              |         |    |   |
|           | Α       | В   | С     | D      |              |         |    |   |
| (a)       | 1       | 4   | 2     | 3      |              |         |    |   |
| (b)       | 1       | 2   | 4     | 3      |              |         |    |   |
| (c)       | 3       | 4   | 2     | 1      |              |         |    |   |
| (d)       | 3       | 2   | 4     | 1      |              |         |    |   |
| ΎM        | ajuli′, | the | river | island | l, is        | located | in | W |
|           |         |     |       |        | -            |         |    |   |

48. 'Majuli', the river island, is located in which one of the following rivers?(a) Jamuna(b) Padma

| () )      | (-)             |
|-----------|-----------------|
| (c) Ganga | (c) Brahmaputra |

- **49.** Which one of the following Indian States has recorded negative growth of population as per Census 2011?
  - (a) Manipur(b) Mizoram(c) Tripura(d) Nagaland
- **50.** Which one of the following types of cloud is characterized by continuous precipitation?
  - (a) Cirrocumulus
  - (b) Cumulus

|     | (c) Nimbostratus  |        |                     |                  |             |                                  |  |
|-----|---|--------|---------------------|------------------|-------------|----------------------------------|--|
|     | (d) Cumulonimbus  |        |                     |                  |             |                                  |  |
| 51. | Match List-I with List-II and select the correct                                |        |                     |                  |             |                                  |  |
|     | answer using the code given below the Lists :                                   |        |                     |                  |             |                                  |  |
|     |   | List   | -I                  |                  |             | List-II                          |  |
|     | (M  | ajor l | Port)               |                  |             | (Location)                       |  |
|     | А.  | Koll   | kata                |                  |             | (1) Landlocked area              |  |
|     | B.  | Mor    | muga                | 10               |             | (2) In the delta                 |  |
|     | _   |        |                     |                  |             | region                           |  |
|     | C.  | Visa   | khap                | atnan            | n           | (3) On the riverside             |  |
|     | D.  | Para   | dip                 |                  |             | (4) On the entrance              |  |
|     | 6   |        |                     |                  |             | of the estuary                   |  |
|     | Co  | de:    | р                   | C                | п           |                                  |  |
|     | (a)   | A<br>2 | <b>D</b><br>1       |                  | ע<br>2      |                                  |  |
|     | (a)<br>(h)  | 3      | 1<br>4              | +<br>1           | 2           |                                  |  |
|     | (c)   | 2      | 4                   | 1                | 3           |                                  |  |
|     | (d)   | 2      | 1                   | 4                | 3           |                                  |  |
| 52. | Wł  | nich   | one o               | f the            | follov      | wing is not an agent of          |  |
|     | me  | tamo   | orphis              | sm?              | 101101      |                                  |  |
|     | (a)   | Hea    | t                   |                  |             | (b) Compression                  |  |
|     | (c)   | Dec    | ompo                | sitior           | ı           | (d) Solution                     |  |
| 53. | Th  | e sol  | ution               | of wł            | nich o      | ne of the following will         |  |
|     | hav   | ve pI  | H less              | than             | 7?          |                                  |  |
|     | (a)   | NaC    | ЭH                  |                  |             | (b) KCl                          |  |
|     | (c)   | FeC    | l <sub>3</sub>      |                  |             | ( <b>d</b> ) NaCl                |  |
| 54. | Which one of the following is an oxidation                                      |        |                     |                  |             |                                  |  |
|     | reduction reaction?   |        |                     |                  |             |                                  |  |
|     | (a) NaOH + HCI $\rightarrow$ NaCI + H <sub>2</sub> O<br>(b) CrO + H O = C (OII) |        |                     |                  |             |                                  |  |
|     | $(\mathbf{D})$  | 2Mc    | $r + \Omega_{2}$    | $\rightarrow 2$  | Ca(U<br>MoO | 11)2                             |  |
|     | (d) Na SO $\pm$ BaCl $\rightarrow$ BaSO $\pm$ 2NaCl                             |        |                     |                  |             |                                  |  |
| 55  | Wł  | nich   | one i               | of th            | e foll      | $ave_4 + 2i$ used as             |  |
| 00. | fer   | tilize | r?                  |                  | c ion       | owing is not used us             |  |
|     | (a)   | Amı    | noniı               | ım ni            | trate       |                                  |  |
|     | (b) Ammonium sulphide   |        |                     |                  |             |                                  |  |
|     | (c) Ammonium phosphate  |        |                     |                  |             |                                  |  |
|     | (d)   | Amı    | noniı               | ım su            | lphat       | e                                |  |
| 56. | Wł  | nich   | one o               | of the           | e follo     | owing is the chemical            |  |
|     | for   | mula   | a of gy             | /psur            | n?          |                                  |  |
|     | (a)   | CaS    | O <sub>4</sub> . 2I | H <sub>2</sub> O |             | <b>(b)</b> $Ca_2SiO_4$           |  |
|     | (c)   | 2Ca    | 50 <sub>4</sub> . I | f <sub>2</sub> O |             | ( <b>d</b> ) CaSO <sub>4</sub> . |  |
| 57. | Wł  | nich   | one o               | f the            | follo       | wing statements about            |  |
|     | the   | law    | ot co               | nserv            | ration      | of mass is correct?              |  |

(a) A given compound always contains exactly same proportion of elements.

- (b) When gases combine in a reaction, they do so in a simple ratio by volume, provided all gases are at room temperature.
- (c) Matter can neither be created nor destroyed.
- (d) Equal volumes of all gases at same temperature and pressure contain equal number of molecules.
- 58. The wavelength of X-rays is of the order of

**a)** 
$$1 \, \text{A}^\circ$$
 (**b**)  $1 \, \mu \text{m}$ 

- (c) 1 mm (d) 1 cm
- 59. Consider the following velocity and time graph:



Which one of the following is the value of average acceleration from 8 s to 12 s?

- (a)  $8 \text{ m/s}^2$ (b)  $12 \text{ m/s}^2$ (c)  $2 \text{ m/s}^2$ (d)  $-1 \text{ m/s}^2$
- 60. If the focal length of a convex lens is 50 cm, which one of the following is its power?

| ( <b>a</b> ) +2 dioptre | <b>(b)</b> +0.25 dioptre  |
|-------------------------|---------------------------|
| (c) –0.5 dioptre        | ( <b>d</b> ) +0.5 dipotre |

61. A ball is released from rest and rolls down an inclined plane, as shown in the following figure, requiring 4 s to cover a distance of 100 cm along the plane :



Which one of the following is the correct value of angle  $\theta$  that the plane makes with the horizontal? ( $g = 1000 \text{ cm/s}^2$ )

- (a)  $\theta = \sin^{-1}\left(\frac{1}{9.8}\right)$  (b)  $\theta = \sin^{-1}\left(\frac{1}{20}\right)$ (c)  $\theta = \sin^{-1}\left(\frac{1}{80}\right)$  (d)  $\theta = \sin^{-1}\left(\frac{1}{100}\right)$
- 62. The coefficient of areal expansion of a material is  $1.6 \times 10^{-5}$  K<sup>-1</sup>. Which one of the following

gives the value of coefficient of volume expansion of this material?

(a) 
$$0.8 \times 10^{-5} \text{ K}^{-1}$$
 (b)  $2.4 \times 10^{-5} \text{ K}^{-1}$   
(c)  $3.2 \times 10^{-5} \text{ K}^{-1}$  (d)  $4.8 \times 10^{-5} \text{ K}^{-1}$ 

63. The refractive indices of two media are denoted by  $n_1$  and  $n_2$ , and the velocities of light in these

two media are respectively  $v_1$  and  $v_2$ . If  $\frac{n_2}{n_2}$  is

1.5, which one of the following statements is correct?

- (a)  $v_1$  is 1.5 times  $v_2$ . (b)  $v_2$  is 1.5 times  $v_1$ .
- (c)  $v_1$  is equal to  $v_2$ . (d)  $v_1$  is 3 times  $v_2$ .
- 64. Which one of the following greenhouse gases is in largest concentration in the atmosphere?
  - (a) Chlorofluorocarbon
  - (b) Nitrous oxide
  - (c) Carbon dioxide

2

4

4

2

(c) 3

(d) 3

(d) Methane

65. Match List-I with List-II and select the correct answer using the code given below the Lists:

|                               | List-  | [      | List-II       |        |         |
|-------------------------------|--------|--------|---------------|--------|---------|
| (Ko                           | ppen's | s Clir | (Letter Code) |        |         |
| Α.                            | Tropi  | cal v  | <b>(1)</b> Af |        |         |
| <b>B.</b> Mid-latitude desert |        |        |               |        | (2) Cs  |
| C. Mediterranean              |        |        |               | (3) Df |         |
| <b>D.</b> Humid continental   |        |        |               |        | (4) BWk |
| Co                            | de:    |        |               |        |         |
|                               | Α      | B      | С             | D      |         |
| (a)                           | 1      | 4      | 2             | 3      |         |
| (b)                           | 1      | 2      | 4             | 3      |         |

66. Match List-I with List-II and select the correct answer using the code given below the Lists: List-I

1

1

List-II

| (Ra                     | ilwa | ay Zone | (Headquarters) |       |                     |
|-------------------------|------|---------|----------------|-------|---------------------|
| A.                      | We   | st Cent | tral           |       | <b>(1)</b> Jabalpur |
| B.                      | Sou  | th Eas  | t Cer          | ntral | (2) Gorakhpur       |
| C. East Central         |      |         |                |       | (3) Bilaspur        |
| <b>D.</b> North Eastern |      |         |                |       | (4) Hajipur         |
| Co                      | de:  |         |                |       |                     |
|                         | Α    | В       | С              | D     |                     |
| (a)                     | 2    | 3       | 4              | 1     |                     |
| (b)                     | 1    | 4       | 3              | 2     |                     |
| (c)                     | 2    | 4       | 3              | 1     |                     |
| (d)                     | 1    | 3       | 4              | 2     |                     |

- **67.** Which one of the following is the correct descending order of Indian States in terms of sex ratio as per Census 2011?
  - (a) Mizoram-Manipur-Tripura-Meghalaya
  - (b) Tripura-Manipur-Meghalaya-Mizoram
  - (c) Meghalaya-Manipur-Mizoram-Tripura
  - (d) Manipur-Meghalaya-Tripura-Mizoram
- **68.** Steppe (temperate continental) climate is not experienced in which one of the following places?
  - (a) Pretoria (b) Saskatchewan
  - (c) Perth (d) Buenos Aires
- **69.** Which one of the following is not a process of chemical weathering?
  - (a) Solution(b) Carbonation(c) Oxidation(d) Exfoliation
- **70.** Which one of the following statements is correct for a plane mirror?
  - (a) Its focal length is zero.
  - (b) The size of the image of an object placed in front of the mirror is slightly less than that of the object.
  - (c) The image is virtual, erect and laterally inverted.
  - (d) Its focal length is 200 cm.
- **71.** An object is placed in front of a convex mirror. Which one of the following statements is correct?
  - (a) It will never form an inverted image.
  - (b) The image moves towards the focus when the object moves towards the mirror.
  - (c) Depending on the position of the object with respect to the mirror, the image can be inverted and real.
  - (d) The size of the image becomes larger than that of the object when the object is placed at a distance equal to half the focal length.
- **72.** A circular coil of radius R having N number of turns carries a steady current I. The magnetic induction at the centre of the coil is 0.1 tesla. If the number of turns is doubled and the radius is halved, which one of the following will be the correct value for the magnetic induction at the centre of the coil?

| (a) | 0.05 tesla | (b) 0.2 tesla |
|-----|------------|---------------|
| (c) | 0.4 tesla  | (d) 0.8 tesla |

- **73.** Which one among the following is not a Fundamental Right under the Constitution of India?
  - (a) Right to equality
  - (b) Right to freedom
  - (c) Right to citizenship
  - (d) Right against exploitation
- **74.** Which one of the following crops was introduced by the Portuguese in India?
  - (a) Opium (b) Coffee
  - (c) Betel leaf (d) Chili
- **75.** Consider the following statements about merchant guilds of South India :
  - (1) Ayyavole merchant guild was originally established in Aihole.
  - (2) Manigraman merchant guild was subordinated to the Anjuvannam merchant guild in the 13<sup>th</sup> century.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only
- (c) Both 1 and 2 (d) Neither 1 nor 2
- **76.** Which one of the following pairs is correctly matched?
  - Bhakti SaintPhilosophy(a) Shankara: Avadhuta(b) Ramananda: Kevaladvaita(c) Ramanuja: Vishishtadvaita
  - (d) Chaitanya : Advaita
- **77.** When did the Stamp Act Congress consisting of delegates from 9 of the 13 colonies of America meet in New York City?
  - (a) 1763(b) 1764(c) 1765(d) 1766
- **78.** Who among the following travellers was from Italy and visited Vijayanagar Kingdom in the fifteenth century?
  - (a) Nikitin (b) Fa-Hien
  - (c) Bernier (d) Nicolo Conti
- **79.** Where did the French East India Company first establish its factory in India?
  - (a) Calicut
  - (b) Surat
  - (c) Pondicherry
  - (d) Masulipatnam

#### Oswaal NDA/NA YEAR-WISE SOLVED PAPERS

- **80.** The Central Vigilance Commission was established on the recommendation of which one of the following Committees?
  - (a) Santhanam Committee
  - (b) Dinesh Goswami Committee
  - (c) Tarkunde Committee
  - (d) Narasimham Committee
- **81.** Match List-I with List-II and select the correct answer using the code given below the Lists :

| List-I                     | List-II              |
|----------------------------|----------------------|
| (Author)                   | (Book)               |
| A. Bal Gangadhar Tilak     | (1) The Arctic Home  |
|                            | in the Vedas         |
| B. Dadabhai Naoroji        | (2) Hind Swaraj      |
| C. Mahatma Gandhi          | (3) The Discovery of |
|                            | India                |
| <b>D.</b> Jawaharlal Nehru | (4) Poverty and Un-  |
|                            | British Rule in      |
|                            | India                |
| Code:                      |                      |

|     | А | В | С | D |
|-----|---|---|---|---|
| (a) | 3 | 4 | 2 | 1 |
| (b) | 3 | 2 | 4 | 1 |
| (c) | 1 | 4 | 2 | 3 |
| (d) | 1 | 2 | 4 | 3 |

- 82. Which one of the following is the Official Mascot of the FIFA World Cup, 2018?
  (a) Fuleco
  (b) Zakumi
  (c) Pille
  (d) Zabivaka
- 83. The Headquarters of the proposed National Sports University (As per the National Sports University Ordinance, 2018) will be set up in
  (a) Chhattisgarh
  (b) Manipur
  (c) Kerala
  (d) West Bengal
- **84.** Sentosa island, which was in news recently, is located in

| (a) Singapore | <b>(b)</b> China     |
|---------------|----------------------|
| (c) Australia | <b>(d)</b> Sri Lanka |

- **85.** India, in June 2018, asserted that any mega connectivity project must respect sovereignty and territorial integrity of the countries. The project referred to above is
  - (a) North-South Corridor Project
  - (b) Belt and Road Initiative
  - (c) Chabahar Port
  - (d) Panama Canal Expansion

- **86.** Who among the following is not a member of G7?
  - (a) France
  - (b) Germany
  - (c) Russia
  - (d) Japan
- **87.** Who among the following leaders started the Indian Home Rule League?
  - (a) Gopal Krishna Gokhale
  - (b) Mahatma Gandhi
  - (c) Bal Gangadhar Tilak
  - (d) J. B. Kripalani
- **88.** Every Judge of the Supreme Court of India is appointed by
  - (a) the Supreme Court Collegium
  - (b) the Cabinet
  - (c) the President of India
  - (d) the Lok Sabha

**89.** The Nehru-Mahalanobis Strategy of Development was implemented for the first time by which one of the following Five-Year Plans?

- (a) First Five-Year Plan
- (b) Second Five-Year Plan
- (c) Third Five-Year Plan
- (d) Seventh Five-Year Plan
- **90.** Which one of the following is not a part of the Directive Principles of State Policy as enshrined in the Constitution of India?
  - (a) Equal justice and free legal aid
  - (b) Protection of monuments and places and objects of national importance
  - (c) Protection of personal law
  - (d) Separation of Judiciary from Executive
- **91.** The word 'socialist' was inserted into the Preamble to the Constitution of India through which one of the following Amendment Acts?
  - (a) 41<sup>st</sup> Amendment Act
  - (b) 42<sup>nd</sup> Amendment Act
  - (c) 43<sup>rd</sup> Amendment Act
  - (d) 44<sup>th</sup> Amendment Act
- **92.** The place of English East India Company settlement in Madras was known as
  - (a) Fort William
  - (b) Fort St. George
  - (b) Elphinstone Circle
  - (d) Marble Palace

- **93.** Which one of the following Indian States (other than Himalayan or NE States) ranked first in the Composite Water Management Index as per the report issued by the NITI Aayog in June 2018?
  - (a) Madhya Pradesh
  - (b) Karnataka
  - (c) Gujarat
  - (d) Maharashtra
- **94.** Who among the following is the ex officio Chairman of the North Eastern Council?
  - (a) The President of India
  - (b) The Prime Minister of India
  - (c) The Union Home Minister
  - (d) The Union Minister of State (Independent Charge), Ministry of Development of North Eastern Region
- **95.** Which one of the following is the theme of the World Blood Donor Day, 2018?
  - (a) Blood connects us all
  - (b) Be there for someone else. Give blood. Share life
  - (c) Give blood. Give now. Give often
  - (d) Thank you for saving my life
- **96.** 'Seva Bhoj Yojana', a scheme of the Government of India that seeks to reimburse Central share of CGST and IGST on Food/ Prasad/Langar/Bhandara offered by religious institutions, is introduced recently by which one of the following Ministries?

(a) The Ministry of Culture

(b) The Ministry of Home Affairs

- (c) The Ministry of Consumer Affairs, Food and Public Distribution
- (d) The Ministry of Social Justice and Empowerment
- **97.** Dr. Bindeshwar Pathak, who was awarded Nikkei Asia Prize, 2018 for Culture and Community, is the founder of
  - (a) Bachpan Bachao Andolan
  - (b) PRS Legislative Research
  - (c) Sulabh Sanitation and Social Reform Movement
  - (d) Smile Foundation
- **98.** Article 352 of the Constitution of India contains provisions related to
  - (a) financial emergency.
  - (b) failure of constitutional machinery in States.
  - (c) suspension of the enforcement of rights conferred in Part III of the Constitution.
  - (d) general emergency.
- **99.** The Theosophical Society was led by
  - (a) A. O. Hume (b) Arthur Griffith
  - (c) Annie Besant (d) Lord Dufferin
- **100.** Which one of the following statements about Bipin Chandra Pal is correct?
  - (a) He was a member of the moderate group of Congress.
  - (b) He was a member of the extremist group of Congress.
  - (c) He was the Minister of Defence in the first Government of independent India.
  - (d) He was the Chief Minister of West Bengal.



| O No | Answer Kev | Topic Name            | Chapter Name   |
|------|------------|-----------------------|--|
| 1    | (b)        | Sound Wave            | Sound Waves and their Properties                               |
| 2    | (a)        | Sound Wave            | Sound Waves and their Properties                               |
| 3    | (b)        | Indian Constitution   | Elementary Study of Indian Constitution and                    |
|      |            |                       | Administration   |
| 4    | (c)        | Mughal Architecture   | Mughal Dynasty   |
| 5    | (b)        | Phytoplanktons        | Ecosystem  |
| 6    | (a)        | Geostrophic wind      | Velocity and Acceleration                                      |
| 7    | (a)        | Eukaryotic Cell       | Cell   |
| 8    | (b)        | Smooth Endoplasmic    | Cell   |
|      |            | Reticulum             |  |
| 9    | (a)        | Meristems             | Plant Anatomy  |
| 10   | (c)        | Monera                | Biological Classification                                      |
| 11   | (a)        | Viral Disease         | Human Diseases   |
| 12   | (b)        | Atomic Number         | Elementary Ideas about the Structure of                        |
|      |            |                       | Atom   |
| 13   | (d)        | Atomic Number         | Elementary Ideas About the Structure of                        |
|      |            |                       | Atom   |
| 14   | (c)        | Heterogenous Mixture  | Elements, Compounds and Mixtures                               |
| 15   | (b)        | Formula Mass          | Atomic Mass and Molecular Mass                                 |
| 16   | (c)        | Carbon Monoxide       | Carbon and Its Compound  |
| 17   | (d)        | Ultra Sound Wave      | Sound Waves and their Properties                               |
| 18   | (a)        | Magnetic Field        | Magnetic Effect of Electric Current                            |
| 19   | (c)        | Ideal Gases           | Kinetic Theory of Gases  |
| 20   | (b)        | Units                 | Units and Measurement  |
| 21   | (a)        | LED                   | Semiconductor Electronics                                      |
| 22   | (b)        | Electric Potential    | Electrostatics   |
| 23   | (b)        | Location              | Regional Geography of India                                    |
| 24   | (d)        | Delta Region          | Important Sea Ports and Main Sea, Land and                     |
|      |            |                       | Air Routes of India  |
| 25   | (c)        | Wild Life Sanctuaries | Current Affairs  |
| 26   | (d)        | Temperature           | Temperature and Atmospheric Pressure                           |
| 27   | (b)        | Salinity              | Important Sea Ports and Main Sea, land and air Routes of India |
| 28   | (c)        | Hard and Soft Water   | Chemistry in Everyday Life                                     |
| 29   | (a)        | Stoichiometry         | Chemical Reactions and Equations                               |
| 30   | (d)        | Acidity and Basicity  | Acids, Bases and Salts   |
| 31   | (d)        | Allotropes of Carbon  | Carbon and its Compound  |
| 32   | (a)        | Carbon Dioxide        | Carbon and its Compound  |
| 33   | (d)        | Stomach               | Digestive System   |
| 34   | (a)        | Heart                 | Circulatory System   |

# Answers

| Q No | Answer Key | Topic Name                              | Chapter Name                             |
|------|------------|---|--|
| 35   | (a)        | Photosynthesis                          | Growth and Reproduction in Plants and    |
|      |            |   | Animals                                  |
| 36   | (b)        | Reflex Arc                              | Neural Control                           |
| 37   | (d)        | Plants                                  | Growth and Reproduction in Plants and    |
|      |            |   | Animals                                  |
| 38   | (b)        | Resistance                              | Current Electricty                       |
| 39   | (c)        | Temperature                             | Some Basic Concepts of Chemistry         |
| 40   | (b)        | Properties of EMW                       | Electromagnetic Waves                    |
| 41   | (b)        | Simple Pendulum                         | Oscillations                             |
| 42   | (c)        | Domestic Circuit                        | Current Electricity                      |
| 43   | (b)        | Resistance                              | Current Electricty                       |
| 44   | (d)        | Optical Instruments                     | Ray Optics                               |
| 45   | (c)        | Gravity                                 | Gravitation                              |
| 46   | (a)        | Rivers                                  | Current Affairs                          |
| 47   | (c)        | Current Important World                 | Current Affairs                          |
|      |            | Events                                  |  |
| 48   | (d)        | Majuli Island                           | Regional Geography of India              |
| 49   | (d)        | Census                                  | Current Affairs                          |
| 50   | (c)        | Condensation and                        | Temperature and Atmospheric Pressure     |
|      |            | Precipitation                           |  |
| 51   | (b)        | Location                                | Regional Geography of India              |
| 52   | (c)        | Rocks                                   | Origin of Earth. Rocks and their         |
|      |            |   | Classification                           |
| 53   | (c)        | pH of Solutions                         | Acids, Bases and Salts                   |
| 54   | (c)        | Oxidation and Reduction                 | Redox Reactions                          |
|      |            | Reactions                               |  |
| 55   | (b)        | Chemical Fertilizers                    | Some Important Chemical Compounds        |
| 56   | (a)        | Gypsum                                  | Some Important Chemical Compounds        |
| 57   | (C)        | Mass                                    | Physical Properties and States of Matter |
| 58   | (a)        | Properties of EMW                       | Electromagnetic Waves                    |
| 59   | (d)        | Acceleration                            | Motion                                   |
| 60   | (a)        | Power of lens                           | Ray Optics                               |
| 61   | (c)        | Motion on Inclined Plane                | Laws of Motion                           |
| 62   | (b)        | Thermal Expansion                       | Thermal Properties of Matter             |
| 63   | (a)        | Refractive Index                        | Ray Optics                               |
| 64   | (c)        | Green House Gases                       | Environmental Chemistry                  |
| 65   | (a)        | Temperature and Atmospheric<br>Pressure | Major Natural Regions of the World       |
| 66   | (d)        | Railway                                 | Current Affairs                          |
| 67   | (c)        | Census                                  | Current Affairs                          |
| 68   | (a)        | Climate                                 | Major Natural Regions of the World       |
| 69   | (d)        | Climate Weathering                      | Weathering—Mechanical and Chemical       |
| 70   | (c)        | Mirror                                  | Ray Optics                               |

| Q No | Answer Key | Topic Name                   | Chapter Name  |
|------|------------|------------------------------|---|
| 71   | (a)        | Convex Lens                  | Ray Optics  |
| 72   | (c)        | Mutual Induction             | Electromagnetic Induction   |
| 73   | (c)        | Fundamental Rights           | Elementary Study of Indian Constitution and Administration                    |
| 74   | (d)        | Portugese                    | Agricultural Crops  |
| 75   | (a)        | Chalukaya Dynasty            | A Broad survey of Indian History with<br>Emphasis on Culture and Civilisation |
| 76   | (c)        | Sufi Saint                   | A broad Survey of Indian History with<br>Emphasis on Culture and Civilisation |
| 77   | (c)        | Vijaynagar Kingdom           | A broad Survey of Indian History with<br>Emphasis on Culture and Civilisation |
| 78   | (d)        | Foreign Travellers           | A broad survey of Indian History with<br>Emphasis on Culture and Civilisation |
| 79   | (b)        | French East India Company    | Exploration and Discovery   |
| 80   | (a)        | Central Vigilance Commission | Current Affairs   |
| 81   | (c)        | Freedom Fighters             | Freedom Movement in India   |
| 82   | (d)        | Sports                       | Current Affairs   |
| 83   | (b)        | National Sports University   | Current Affairs   |
| 84   | (a)        | Sentosa Island               | Current Affairs   |
| 85   | (b)        | Government Projects          | Current Affairs   |
| 86   | (c)        | International Organisation   | Current Affairs   |
| 87   | (c)        | Indian Home Rule League      | Freedom Movement in India   |
| 88   | (c)        | Supreme Court                | Elementary Study of Indian Constitution and Administration                    |
| 89   | (b)        | Five Year Plans              | Elementary knowledge of Five Year Plans of<br>India                           |
| 90   | (c)        | DPSP                         | Elementary study of Indian Constitution and Administration                    |
| 91   | (b)        | Amendments                   | Elementary study of Indian Constitution and Administration                    |
| 92   | (b)        | East India Company           | Forces Shaping the Modern World   |
| 93   | (c)        | Indexes                      | Current Affairs   |
| 94   | (c)        | Appointments                 | Current Affairs   |
| 95   | (b)        | Important Days               | Current Affairs   |
| 96   | (a)        | Government Schemes           | Current Affairs   |
| 97   | (c)        | Prize                        | Current Affairs   |
| 98   | (d)        | Article 352                  | Elementary Study of Indian Constitution and Administration                    |
| 99   | (c)        | The Theosophical Society     | Forces Shaping the Modern World   |
| 100  | (b)        | Freedom Fighters             | Freedom Movement in India   |