रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS

सी ई एन आर आर बी - ०२/२०२४ - CEN RRB - 02/2024

Test Date	20/12/2024
Test Time	4:30 PM - 6:00 PM
Subject	RRB Technicians Grade III

*** Note**
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : **RRB Technicians Grade III**

Q.1 What will be the effect of surface area on the evaporation process?

Ans
✗ 1. Evaporation decreases with increase in surface area.
✗ 2. Evaporation increases with decrease in surface area.
✓ 3. Evaporation increases with increase in surface area.
✗ 4. No effect of surface area on evaporation process.

Q.2 Who was the first to use a glass prism to obtain a spectrum of sunlight?

Ans
✓ 1. Isaac Newton
✗ 2. Fermi
✗ 3. Einstein
✗ 4. Edison

Q.3 The sum of two rational numbers is −4. If one of them is $\frac{-13}{25}$, then the other is:

Ans
✓ 1. $\frac{-87}{25}$
✗ 2. $\frac{-67}{25}$
✗ 3. $\frac{-37}{25}$
✗ 4. $\frac{-47}{25}$

Q.4 In a circuit, a 10 volt battery and three resistors R1 = 2 Ω, R2 = 3 Ω, and R3 = 6 Ω are connected in parallel to each other. Which of the following is the correct value of effective resistance R_e and current I flowing through the circuit?

Ans

✗ 1. $R_e = 2\ \Omega, I = 1\ A$

✗ 2. $R_e = 1\ \Omega, I = 1\ A$

✗ 3. $R_e = 2\ \Omega, I = 10\ A$

✓ 4. $R_e = 1\ \Omega, I = 10\ A$

Q.5 Which of the following connects the kidney with the urinary bladder?

Ans

✗ 1. Pelvis

✗ 2. Penis

✓ 3. Ureter

✗ 4. Urethra

Q.6 What is the chemical composition of washing soda?

Ans

✗ 1. $Al_2(CO_3)_3.10H_2O$

✗ 2. $Na_2SO_4.10H_2O$

✗ 3. $Al_2(SO_4)_3.10H_2O$

✓ 4. $Na_2CO_3.10H_2O$

Q.7 John, Kate, Lisa, Mary, Neil and Omar are sitting around a circular table facing the centre. John sits second to left of Kate. Lisa sits third to right of Kate. Mary sits to the immediate left of Lisa. Neil sits to the immediate right of Kate.

How many people Sit between Omar and Mary when counted from the right of Omar ?

Ans

✗ 1. One

✗ 2. Three

✗ 3. Zero

✓ 4. Two

Q.8 In which of the following organisms is fragmentation common?

Ans

✗ 1. Only in few unicellular organisms

✓ 2. Only a few multicellular organisms

✗ 3. In all multicellular organisms

✗ 4. In all unicellular organisms

Q.9 **Which of the following schemes was introduced by the Ministry of Culture, Government of India, to provide a platform for the artistes and artisans of the Northeast region to showcase their rich cultural heritage?**

Ans

✗ 1. The Penta - Festival of the Northeast

✗ 2. The Quadra - Festival of the Northeast

✗ 3. The Trident - Festival of the Northeast

✓ 4. The Octave - Festival of the Northeast

Q.10 Which of the following grows rapidly and ripens to form a fruit?

Ans

✗ 1. Anther

✗ 2. Stigma

✓ 3. Ovary

✗ 4. Pollen tube

Q.11 Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

All oranges are mangoes.

No mango is a banana.

Conclusions:

(I) No banana is a mango.

(II) All mangoes are oranges.

Ans

✗ 1. Both conclusions I and II follow

✗ 2. Only conclusion II follows

✓ 3. Only conclusion I follows

✗ 4. Neither conclusion I nor II follows

Q.12 Which of the following metals reacts only with steam NOT with cold or hot water?

Ans

✓ 1. Aluminium

✗ 2. Magnesium

✗ 3. Potassium

✗ 4. Sodium

Q.13 P, Q, R, S, T, U, and V are sitting around a circular table facing the centre. Only 1 person sits between T and S when counted from the left of S. Only 2 people sit between V and R when counted from the right of R. T and Q are immediate neighbours of P. S sits immediately to the left of U. How many people sit between Q and R when counted from the left of Q?

Ans

✗ 1. 2

✓ 2. 3

✗ 3. 1

✗ 4. 4

Q.14 The main thinking part of the brain that receives sensory impulses from various receptors is the:

Ans

✗ 1. hind-brain

✓ 2. fore-brain

✗ 3. spinal cord

✗ 4. mid-brain

Q.15 NJQO is related to HDKI in a certain way based on the English alphabetical order. In the same way, SOVT is related to MIPN. To which of the following options is PLSQ related, following the same logic?

Ans

✗ 1. FJMK

✗ 2. JFKM

✗ 3. FJKM

✓ 4. JFMK

Q.16 Select the correct option related to the function of villi in the small intestine.

Ans

✗ 1. Protection from acid

✗ 2. Secretion of minerals

✓ 3. Increases absorptive surface area

✗ 4. Helps in excretion

Q.17 Who developed the planetary model of the atom with electrons orbiting the nucleus in discrete energy levels?

Ans

✗ 1. Ernest Rutherford

✗ 2. J.J. Thomson (Joseph John Thomson)

✓ 3. Niels Bohr

✗ 4. Dmitri Mendeleev

Q.18 **In 2023, the Total Gross Enrollment Ratio (GER) for elementary schools in India stood at _____.**

Ans

✗ 1. 122.1%

✗ 2. 110.2%

✗ 3. 111.7%

✓ 4. 100.1%

Q.19 Which organism uses regenerative cells for reproduction in the process of budding?

Ans

✗ 1. Amoeba

✗ 2. Leishmania

✗ 3. Yeast

✓ 4. Hydra

Q.20 If the radius of sphere is decreased by 10 percent, then the volume of sphere will be decreased by what percentage?

Ans

✗ 1. 25.6%

✗ 2. 32.5%

✗ 3. 30.6%

✓ 4. 27.1%

Q.21 The age of the father is three times the age of the son. If the age of the son is 15 years, then the sum of the age of father and son is:

Ans

✗ 1. 45 years

✗ 2. 40 years

✓ 3. 60 years

✗ 4. 50 years

Q.22 Excluding stoppages, the speed of a train is 45 km/h and including stoppages, it is 36 km/h. How many minutes does the train stop per hour?

Ans

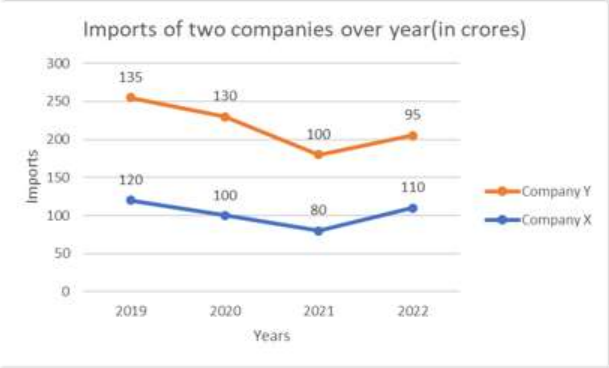
✗ 1. 11 min

✗ 2. 10 min

✗ 3. 15 min

✓ 4. 12 min

Q.23 Study the following chart and answer the question that follows.



What is the difference in the imports by company X in the years 2019 and 2021?

Ans

✗ 1. 10 crore

✗ 2. 15 crore

✓ 3. 40 crore

✗ 4. 20 crore

Q.24 Prakash starts from Point A and drives 30 km towards East. He then takes a right turn, drives 18 km, turns right and drives 17 km. He then takes a right turn and drives 9 km. He takes a final left turn, drives 13 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

(All turns are 90 degree turns only unless otherwise specified.)

Ans

✗ 1. 10 km towards North

✓ 2. 9 km towards North

✗ 3. 9 km towards West

✗ 4. 10 km towards East

Q.25 Which of the following will be the average velocity of the particle with initial velocity u and final velocity v in the given time interval?

Ans

✗ 1. $\frac{u-v}{2}$

✗ 2. $u+v$

✓ 3. $\frac{u+v}{2}$

✗ 4. 0

Q.26 Select the triad which follows the same pattern as that followed by the two triads given below. Both triads follow the same pattern.

JE-KF-LM

NI-OJ-PQ

Ans

✗ 1. OJ-PK-QS

✗ 2. QL-RM-SU

✓ 3. LG-MH-NO

✗ 4. PK-QL-RT

Q.27 Which of the following reactions is NOT an example of oxidation?

Ans

✗ 1. $Mg + O_2 \rightarrow 2MgO$

✓ 2. $2AgCl \rightarrow 2Ag + Cl_2$

✗ 3. $C + O_2 \rightarrow CO_2$

✗ 4. $2Cu + O_2 \rightarrow CuO$

Q.28 Seven boxes A, B, C, L, X, Y and Z are kept one over the other but not necessarily in the same order. Only three boxes are kept below L. Only two boxes are kept between L and Z. Only A is kept immediately above B. X is kept at some place below Y and at some place above C.

Which box is kept at second position from the bottom?

Ans

✗ 1. Y

✗ 2. X

✗ 3. A

✓ 4. C

Q.29 In order to pass in an examination, a student is required to get 975 marks out of the maximum aggregate marks. Priya got 870 marks and was declared failed by 7%. What is the maximum aggregate marks that a student can get in the examination?

Ans

✗ 1. 1000

✗ 2. 1200

✓ 3. 1500

✗ 4. 1400

Q.30 **How many key priorities are outlined in the Union Budget 2024-25 to achieve the objective of 'Viksit Bharat'?**

Ans

✗ 1. Eight

✗ 2. Ten

✗ 3. Seven

✓ 4. Nine

Q.31 Which of the following is an example of an object moving in uniform circular motion?

Ans

✗ 1. A bird flying in the sky

✗ 2. A person walking on a sidewalk

✓ 3. A satellite in a circular orbit around the earth.

✗ 4. A car driving straight on a highway

Q.32 A bought an item for ₹384 and sold it for ₹480. B bought another item for ₹1,254 and sold it for ₹1,672. What is the ratio of the gain percentage of A to the gain percentage of B?

Ans

✗ 1. $\frac{15}{4}$

✓ 2. $\frac{3}{4}$

✗ 3. $\frac{15}{2}$

✗ 4. $\frac{3}{2}$

Q.33 Which of the following substances is in solid form in the given reaction?

Sodium sulphate + barium chloride → sodium chloride + barium sulphate

Ans

✗ 1. Barium chloride

✓ 2. Barium sulphate

✗ 3. Sodium sulphate

✗ 4. Sodium chloride

Q.34 The ratio between the radius of the base and the height of a cylinder is 3 : 4. If its volume is 38808 cm^3 then, using $\pi = \frac{22}{7}$, find the diameter of the cylinder.

Ans

✗ 1. 21 cm

✗ 2. 28 cm

✗ 3. 14 cm

✓ 4. 42 cm

Q.35 In a certain code language, 'gentle breeze rustles' is coded as 'jb eg lz', and 'breeze rustles softly' is coded as 'lz cw eg'.
What is the code for 'softly' in the given code language?

Ans

✓ 1. cw

✗ 2. eg

✗ 3. lz

✗ 4. jb

Q.36 A line segment is of length 5 cm 7 mm. Another line segment of length 9 cm 6 mm is joined to it in the same direction. The length of the combined line segment is:

Ans

✗ 1. 14 cm 3 mm

✗ 2. 14 cm 6 mm

✗ 3. 15 cm 7 mm

✓ 4. 15 cm 3 mm

Q.37 **In August 2024, Biochemist Govindarajan Padmanabhan was awarded which of the following awards?**

Ans

✗ 1. Shanti Swarup Bhatnagar award

✗ 2. Vigyan Yuva-Shanti Swarup Bhatnagar

✗ 3. Vigyan Shri

✓ 4. Vigyan Ratna Puraskar

Q.38 Which of the following metals is found in a free state in the earth's crust?

Ans

✗ 1. Aluminium

✗ 2. Sodium

✗ 3. Zinc

✓ 4. Gold

Q.39 According to the reactivity series of metals, which metal pair is found in native state?

Ans

✗ 1. Calcium and magnesium

✗ 2. Calcium and aluminium

✓ 3. Gold and platinum

✗ 4. Sodium and potassium

Q.40 What is the power of this combination of lens placed together when the power of the converging lens is 4.50 D and diverging lens is 3.00 D?

Ans

✗ 1. $-13.5D$

✓ 2. $+1.5D$

✗ 3. $-1.5D$

✗ 4. $-7.5D$

Q.41 Express $0.\overline{512}$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

Ans

✓ 1. $\frac{512}{999}$

✗ 2. $\frac{52}{999}$

✗ 3. $\frac{512}{99}$

✗ 4. $\frac{502}{999}$

Q.42 Refer to the given series and answer the question that follows (all numbers are single-digit numbers only).

(Left) 1 4 3 0 2 2 4 6 3 7 2 4 8 4 0 3 3 4 2 4 0 7 0 0 4 9 2 9 9 0 (Right)

What is the sum of the 1^{st} digit from the left and the 12^{th} digit from the right?

Ans

✗ 1. 0

✗ 2. 5

✗ 3. 4

✓ 4. 3

Q.43 If a machine does 500 J of work in 4 seconds, what is its power output?

Ans

✗ 1. 250 watt

✗ 2. 2000 watt

✓ 3. 125 watt

✗ 4. 8000 watt

Q.44 Two pipes A and B together can fill a cistern in 4 hours. Had they been opened separately, then B would have taken 6 hours more than A to fill the cistern. How much time will be taken by A to fill the cistern separately?

Ans

✗ 1. 2 hours

✓ 2. 6 hours

✗ 3. 8 hours

✗ 4. 1 hour

Q.45 Which of the following non-biodegradable substances may be inert and simply persist in the environment for a long time or may harm the various members of the eco-system?

Ans

✓ 1. Plastic made material

✗ 2. Paper made material

✗ 3. Clay made material

✗ 4. Plant leaves made material

Q.46 If the volume of a cuboid is $3x^2 - 27$, then its possible dimensions are :

Ans

✗ 1. $3, x^2, -27x$

✗ 2. $3, 3, 3$

✓ 3. $3, x - 3, x + 3$

✗ 4. $3, x^2, 27x$

Q.47 Which of the following best describes the relationship between distance, time and speed when a body is NOT accelerating?

Ans

✗ 1. $\text{speed} = \dfrac{\text{time}}{\text{distance}}$

✓ 2. $\text{time} = \dfrac{\text{distance}}{\text{speed}}$

✗ 3. $\text{distance} = \dfrac{\text{speed}}{\text{time}}$

✗ 4. $\text{distance} = \dfrac{\text{time}}{\text{speed}}$

Q.48 Which of the following statements is/are NOT true about the principal focus of a spherical mirror?

i) It always lies on the principal axis.

ii) An incident ray passing through the focus after reflection becomes parallel to the principal axis.

iii) Principal focus is a point where all the incident rays after reflection from the mirror meet.

Ans

✗ 1. Only (i)

✓ 2. Only (iii)

✗ 3. Only (ii) and (iii)

✗ 4. Only (i) and (ii)

Q.49 The atomic mass of an element is usually expressed in which of the following units?

Ans

✗ 1. Grams per mole (g/mol)

✗ 2. Pounds

✗ 3. Kilograms

✓ 4. Atomic mass units (amu)

Q.50 In a certain code language,

A + B means 'A is the sister of B',

A – B means 'A is the husband of B',

A × B means 'A is the mother of B',

and A ÷ B means 'A is the brother of B'.

How is P related to T if 'P × Q ÷ R – S × T'?

Ans

✗ 1. Father's sister

✓ 2. Father's mother

✗ 3. Mother's mother

✗ 4. Mother's sister

Q.51 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which pair does not belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans

✗ 1. RY – AS

✗ 2. OV – XP

✗ 3. NU – WO

✓ 4. DI – PW

Q.52 What will come in the place of '?' in the following equation, if '÷' and ' × ' are interchanged?

54 × 9 ÷ 8 + 22 – 33 = ?

Ans

✗ 1. 41

✓ 2. 37

✗ 3. 39

✗ 4. 42

Q.53 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

BEH, KNQ, TWZ, CFI, ?

Ans

✓ 1. LOR

✗ 2. KNQ

✗ 3. LNP

✗ 4. KMO

Q.54 If 'J' stands for '×', 'K' stands for '–', 'L' stands for '÷' and 'M' stands for '+', what will come in place of the question mark '?' in the following equation?

5 J 12 K 56 M 21 L 7 = ?

Ans

✗ 1. 17

✗ 2. −13

✗ 3. −3

✓ 4. 7

Q.55 Kulhads are disposable cups made of clay. A little thought shows that making these kulhads on a large scale would result in:

Ans

✗ 1. Unhygienic of its use

✓ 2. losing the fertile top-soil

✗ 3. large remains collected in environment

✗ 4. choking the sewage line

Q.56 The fourth proportional to 15, 10 and 12 is:

Ans

✗ 1. 12

✗ 2. 10

✗ 3. 6

✓ 4. 8

Q.57 Two numbers are in the ratio 7 : 5. If their positive difference is 360, then the greater number between them is:

Ans

✓ 1. 1260

✗ 2. 1040

✗ 3. 900

✗ 4. 1500

Q.58 Refer to the given series and answer the question that follows (all numbers are single-digit numbers only, and all counting is to be done from left to right).

(Left) 5 3 0 3 5 7 7 9 4 4 8 3 5 0 2 0 9 5 1 9 2 8 5 4 6 3 2 8 1 5 (Right)

How many such odd digits are there, each of which is immediately preceded by an even digit and also immediately followed by an even digit?

Ans

✗ 1. 4

✗ 2. 3

✓ 3. 2

✗ 4. 0

Q.59 All information from our environment is detected by the specialised tips of some nerve cells and these receptors are usually located in our sense organs such as:

Ans

✗ 1. the inner ear

✓ 2. the inner ear, the nose and the tongue

✗ 3. the tongue

✗ 4. the nose

Q.60 **In which of the following months was Charaideo Maidam in Assam included in the UNESCO World Heritage Site list under the cultural category?**

Ans

✗ 1. September 2024

✗ 2. October 2024

✗ 3. August 2024

✓ 4. July 2024

Q.61 Simplify the given expression.

$3 + 3 \div 3 \times 3 - 3$

Ans

✗ 1. 0

✗ 2. 1

✗ 3. –3

✓ 4. 3

Q.62 **In which of the following countries did India win its first double team gold at the Chess Olympiad in September 2024?**

Ans

✗ 1. China

✗ 2. Indonesia

✗ 3. Uzbekistan

✓ 4. Hungary

Q.63 Two banks, A and B, offered loans at 5.5% and 6.5% per annum, respectively. Ramesh borrowed an amount of ₹3,00,000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Ramesh after 2 years.

Ans

✗ 1. ₹4,000

✗ 2. ₹2,000

✓ 3. ₹6,000

✗ 4. ₹8,000

Q.64 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which pair does not belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster.)

Ans

✗ 1. EI-MH

✓ 2. PT-XR

✗ 3. GK-OJ

✗ 4. NR-VQ

Q.65 According to the sign convention, the focal length of a convex lens is _____ and that of a concave lens is _____.

Ans

✗ 1. negative; negative

✗ 2. positive; positive

✓ 3. positive; negative

✗ 4. negative; positive

Q.66 **To achieve its target of becoming net carbon zero by 2035, Reliance Industries plans to replace transportation fuels with:**

Ans

✗ 1. natural gas and biofuels

✗ 2. solar and wind energy

✓ 3. clean electricity and hydrogen

✗ 4. biomass and nuclear energy

Q.67 Five-fourths of a number is greater than three-fourths of the number by 7. Find the number.

Ans

✗ 1. 8

✓ 2. 14

✗ 3. 12

✗ 4. 10

Q.68 Which of the following in eukaryotes is separated from the cytoplasm by a double-layered membrane and it directs the life processes of the cell?

Ans

✓ 1. Nucleus

✗ 2. Plastids

✗ 3. Ribosome

✗ 4. Endoplasmic reticulum

Q.69 If the position of an object is in between the principal focus and pole of a concave mirror, then the image formed will be:

Ans

✗ 1. real and diminished

✗ 2. virtual and diminished

✗ 3. real and enlarged

✓ 4. virtual, erect and enlarged

Q.70 Two pipes, A and B, can fill a tank of 1000 litres in 5 hours and 6 hours, respectively. If they are opened together, how many hours will they take to fill an empty tank of 1800 litres?

Ans

✓ 1. $\frac{54}{11}$

✗ 2. $\frac{45}{11}$

✗ 3. $\frac{25}{11}$

✗ 4. $\frac{52}{11}$

Q.71 In a certain code language, 'morning sun rises' is coded as 'xyq tdj zat', and 'sun rises brightly' is coded as 'tdj zat rfp'. What is the code for 'morning' in the given code language?

Ans

✗ 1. zat

✗ 2. rfp

✓ 3. xyq

✗ 4. tdj

Q.72 How many isotopes of hydrogen element exist in nature?

Ans

✗ 1. 5

✗ 2. 2

✗ 3. 1

✓ 4. 3

Q.73 Given below is a statement followed by two possible reasons numbered I and II. Read the statement carefully and decide which of the two explain(s) the event/observation/information given in the statement.

Statement - Even though the students of school X have ranked among the top three in board exams for the past three years, the school has never received the best school award.

Reasons:

I. School X has high tuition fees.

II. The best school award takes into consideration other activities along with academics.

Ans

✗ 1. Neither I nor II is a possible reason.

✗ 2. Only I is a possible reason.

✓ 3. Only II is a possible reason.

✗ 4. Both I and II are possible reasons.

Q.74 The reproductive parts of angiosperms are located in the flower, where the female reproductive part is made of three parts, stigma, style and ovary and is known as:

Ans

✗ 1. stamen

✓ 2. undefined

✗ 3. petal

✗ 4. sepal

Q.75 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of ::?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

X : 27 :: 15 : Y

Ans

✓ 1. $X = 11, Y = 35$

✗ 2. $X = 17, Y = 38$

✗ 3. $X = 17, Y = 35$

✗ 4. $X = 11, Y = 37$

Q.76 A man has invested ₹65,000 at a rate of $7\frac{1}{2}\%$ per annum simple interest for 6 years. Find the amount that he will receive after 6 years.

Ans

✗ 1. ₹95,750

✓ 2. ₹94,250

✗ 3. ₹28,750

✗ 4. ₹29,250

Q.77 In ΔABC if $\angle A = 50°$ and $\angle B = 70°$, find the measure of exterior angle A.

Ans

✓ 1. 130°

✗ 2. 140°

✗ 3. 60°

✗ 4. 30°

Q.78 The following observations are arranged in ascending order.

29, 32, 38, 50, x , x + 2, 72, 78, 84, 95

If the median is 63, then the value of x is:

Ans

✗ 1. 50

✗ 2. 31

✗ 3. 63

✓ 4. 62

Q.79 Consider a situation where a person is sitting in a car and is driving at a constant velocity in a straight line. If the car turns sharply to the left, the person will be pushed in which of the following directions?

Ans

✗ 1. Left

✗ 2. Backward

✓ 3. Right

✗ 4. Forward

Q.80 **Who became the first Indian woman to win two gold medals at the 2024 Paralympic Games in Paris?**

Ans

✓ 1. Avani Lekhara

✗ 2. Deepa Malik

✗ 3. Pramod Bhagat

✗ 4. Bhavinaben Patel

Q.81 **In October 2024, Partha Sengupta was appointed as the MD and CEO of _____.**

Ans

✗ 1. Canara Bank

✓ 2. Bandhan Bank

✗ 3. State Bank of India

✗ 4. ICICI Bank

Q.82 **Which of the following contracts and relaxes to cause movement and contains special proteins?**

Ans

✓ 1. Muscles

✗ 2. Cartilage

✗ 3. Bone

✗ 4. Blood

Q.83 The value of $(0.1 \times 0.001 \times 0.0001 \times 10^6)$ is:

Ans

✗ 1. 1

✗ 2. $\frac{1}{10}$

✗ 3. 100

✓ 4. $\frac{1}{100}$

Q.84 With an initial velocity of 10 m/s, an object is thrown vertically upwards. The maximum height attained by the object is _____. (Assume $g = 10m/s^2$)

Ans

✔ 1. 5 m

✘ 2. 100 m

✘ 3. 1 m

✘ 4. 20 m

Q.85 Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 5 3 @ # 1 & 9 ÷ Ω 6 £ * $ 2 % 8 4 7 (Right)

How many such numbers are there, each of which is immediately preceded by a symbol and also immediately followed by another symbol?

Ans

✘ 1. 1

✘ 2. 2

✘ 3. 0

✔ 4. 4

Q.86 **The Sir Creek dispute is a long-standing border dispute between India and which neighbouring country?**

Ans

✘ 1. Bangladesh

✘ 2. China

✔ 3. Pakistan

✘ 4. Nepal

Q.87 If 75% of x is 15 less than 15% of 1500, then the value of x is:

Ans

✔ 1. 280

✘ 2. 150

✘ 3. 300

✘ 4. 120

Q.88 Which of the following options should come in place of the question mark (?) in the given series based on the English alphabetical order?

DGJ, LOR, TWZ, BEH, ?

Ans

✔ 1. JMP

✘ 2. JLN

✘ 3. KNQ

✘ 4. KMO

Q.89 Amita bought a laptop at a 20% discount on its marked price. If she paid ₹28,400 for the laptop, what was its marked price?

Ans

✘ 1. ₹33,300

✘ 2. ₹32,600

✘ 3. ₹36,100

✔ 4. ₹35,500

Q.90 If blood :: connective tissue, then bones :: _____.

Ans

✔ 1. connective tissue

✘ 2. nervous tissue

✘ 3. epithelial tissue

✘ 4. muscular tissue

Q.91 What is the physical state of non-metal element bromine?

Ans

✘ 1. Gaseous state

✘ 2. Plasma state

✘ 3. Solid state

✔ 4. Liquid state

Q.92 Which of the following options should come in place of the question mark (?) in the given series to make it logically complete?

33, 41, 57, 89, 153, ?

Ans

✘ 1. 269

✘ 2. 297

✘ 3. 253

✔ 4. 281

Q.93 Which of the following helps in the absorption and upward movement of water and minerals dissolved in it from roots to the leaves?

Ans

✘ 1. Photosynthesis

✘ 2. Translocation

✘ 3. Respiration

✔ 4. Transpiration

Q.94 Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which conclusion(s) logically follow(s) from the given statements.

Statements:

All museums are parks.

No park is a theatre.

Conclusions:

(I) No museum is a theatre.

(II) At least some parks are museums.

Ans

✘ 1. Only conclusion I follows

✔ 2. Both conclusions I and II follow

✘ 3. Neither conclusion I nor II follows

✘ 4. Only conclusion II follows

Q.95 The total amount of electric charge that flows through a circuit is 1200 C in 2 min. Then the amount of electric current that is drawn by the same electric circuit is:

Ans

✗ 1. 100 A

✓ 2. 10 A

✗ 3. 600 A

✗ 4. 60 A

Q.96 The average of eight numbers is 14. The average of six of these numbers is 16. The average of the remaining two numbers is:

Ans

✗ 1. 16

✗ 2. 12

✓ 3. 8

✗ 4. 4

Q.97 The smallest particle of an element that retains its properties is called a/an:

Ans

✗ 1. compound

✗ 2. proton

✓ 3. atom

✗ 4. electron

Q.98 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of ::?

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

X : 84 :: 11 : Y

Ans

✗ 1. X = 6, Y =153

✗ 2. X = 7, Y = 154

✗ 3. X = 6, Y = 152

✓ 4. X = 6, Y = 154

Q.99 Express sin 54° + cos 72° in terms of Trigonometric ratios of angles between 0° and 45°.

Ans

✗ 1. cos 36° + cos 18°

✗ 2. sin 36° + sin 18°

✗ 3. sin 36° + cos 18°

✓ 4. cos 36° + sin 18°

Q.100 Who among the following discovered the nucleus of an atom?

Ans

✗ 1. J Chadwick

✓ 2. E Rutherford

✗ 3. Neils Bohr

✗ 4. JJ Thomson