



Devesh Jindal's
The Weavers Institute
Let's Change the Future

Self-Assessment Test (2023)
Test Code: 2309

BATCH: 9th

DATE -19-03-2023

DURATION: 1 Hr 30 min

MAX. MARKS: 200

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose

INSTRUCTIONS

A. GENERAL:

1. This question paper contains 50 questions.
2. Space is provided for rough work.
3. Blank paper, clipboard, log tables sided rules, calculators, cellular phones, papers and electronic gadgets in any form are NOT allowed.
4. The answer sheet, a machine-gradable Objective Responsive Sheet (ORS), is provided separately.
5. Do not Tamper/mutilate the ORS or this booklet.

B. Question paper format and marking scheme:

6. The question paper consists of 4 sections (Science with 18 Questions, Mathematics with 12 Questions, Social Science with 15 Questions and Mental Ability with 5 Questions). All questions are MCQ based.
7. For each question in every part, you will be awarded (+4) marks if you darken the bubble corresponding to the correct answer and zero marks if no bubble is darkened. In case of darkening the bubble with incorrect answer, minus one (-1) mark will be awarded.

STUDENT NAME _____

Science

1. Which one of the following group of microorganisms are considered as pathogens?
 - (a) Plasmodium
 - (b) Rhizobium
 - (c) Lactobacillus
 - (d) Penicillium
2. $SO_2 + H_2O \rightarrow A$
 $Cu + H_2O + CO_2 + O_2 \rightarrow B$
 Here A & B can be
 - (a) H_2SO_4 & $CuCO_3$
 - (b) H_2SO_3 & $Cu(OH)_2$
 - (c) H_2SO_4 & $Cu(HCO_3)_2$
 - (d) H_2SO_3 & $Cu(HCO_3)_2$
3. The process of conversion of dead plants into fossils fuels, when compressed under high temp is
 - (a) Destructive distillation
 - (b) Refining
 - (c) Decomposition
 - (d) Carbonisation
4. Reason for flame during combustion is:
 - (a) Heat Produced during combustion.
 - (b) Light energy produced during complete combustion
 - (c) Light energy produces due to heat absorption by unburnt particle
 - (d) Wax Particles burns to produce flame in a region of incomplete combustion
5. Reserves that are large enough to protect whole sets of ecosystem are called
 - (a) Wild life Sanctuary
 - (b) National Park
 - (c) Rock Shelter
 - (d) Zoo
6. Cyanobacteria are an example of :
 - (a) Prokaryotes
 - (b) Eukaryotes
 - (c) Plant Cell
 - (d) Animal Cells
7. Fertilisation , In case of humans, takes place on
 - (a) Ovary
 - (b) Oviduct
 - (c) Uterus
 - (d) Where oviduct opens to uterus
8. The production of Hormones that result in changes during puberty in males is controlled by:
 - (a) Testes
 - (b) Pituitary gland
 - (c) Ovaries
 - (d) Thyroid Gland
9. If net force acting on a Bicycle is zero then a Bicycle will
 - (a) Keep moving with same speed and same direction
 - (b) State of motion will changed due to friction
 - (c) Bicycle will slow down and eventually come to rest.
 - (d) Cycle will not be able to maintain balance, hence it will eventually fall.
10. To increase friction between object and floor we need to
 - (i) increase mass
 - (ii) Decrease mass
 - (iii) Increase surface area in contact
 - (iv) Decrease surface area in contact
 - (a) only (i)
 - (b) only (iii)
 - (c) Both (i) and (iii)
 - (d) Both (ii) and (iv)
11. A source produces a sound of frequency 12000 Hz & 25 DB. Which of the following will be Harmful for human ear?
 - (i) Doubling the frequency of sound
 - (ii) Doubling the amplitude of sound
 - (a) only (i)
 - (b) only (ii)
 - (c) Either (i) and (ii)
 - (d) only when both (i) and (ii)

12. When two free ends of a wire, of a circuit with a battery, are dipped in lemon juice, the compass on the side of the wire deflects. This deflection is due to
 (i) Electric effect of current
 (ii) Magnetic effect of current
 (a) Either (i) or (ii)
 (b) Only (i)
 (c) Only (ii)
 (d) Both (i) or (ii)
13. During electroplating of coppers on Iron Nail, Karman dipped copper and Iron nail in Iron Sulphate instead of Copper Sulphate, which of the following changes will Karman observe?
 (i) Colour of solution will turn to pale green from blue.
 (ii) Colours of solution will turn from pale green to blue
 (iii) Copper will eventually deposit on Iron nail
 (iv) There will be no plating of copper on Iron Nail
 (a) Both (i) and (iv)
 (b) Both (ii) and (iii)
 (c) Both (ii) and (iv)
 (d) Both (i) and (iii)
14. What is the best way (if possible) to protect yourself during lightning?
 (a) Stand under a wooden shed.
 (b) Lay flat on the ground in an open area.
 (c) Get in a car with windows closed.
 (d) Squat low on the ground
15. Properties of irregular Reflection
 (i) Caused by Rough surface
 (ii) Does not obey laws of reflection
 (iii) Images cannot be formed in case of irregular reflection
 (iv) Angle of incidences are equal to Angle of reflection.
 (a) (i) & (iii)
 (b) (i) , (ii) & (iii)
 (c) (i) , (ii), (iii) & (iv)
 (d) (i) , (iii) & (iv)
16. The approximate value of a light year is:
 (a) 9.46×10^{13} m
 (b) 9.46×10^{15} m
 (c) 2.48×10^{15} m
 (d) 3.65×10^{15} m
17. What is man component present in the air that causes acid rain
 (i) NO_2 (ii) SO_2
 (iii) CO (iv) CFC
 (a) (i) & (iii) only
 (b) (ii) & (iv) only
 (c) (i) , (ii) & (iii) only
 (d) (i) & (ii) only
18. The number of images formed by two plane mirrors when placed at right angle with each other?
 (a) 5 (c) Infinite
 (b) 2 (d) 3

Mathematics

19. There are two types of mixed nuts; Type A and Type B. One-third of Type A nuts are peanuts and $\frac{2}{5}$ of Type B nuts are peanuts. $2\frac{1}{2}$ kg of Type A and $5\frac{1}{2}$ kg of Type B are mixed together. What fraction of this mixture is peanuts?
 (a) $\frac{11}{120}$ (b) $\frac{11}{40}$
 (c) $\frac{91}{240}$ (d) None of these
20. Find the value of x . If $16^x = \frac{32 \times 2^x}{4^x}$
 (a) 2 (b) 4
 (c) 3 (d) 1
21. Find the value of A, B and C”

$$\begin{array}{r} 23 \\ \times A \\ \hline BC1 \end{array}$$

 (a) A=7, B=1, C=7 (b) A=7, B=2, C=6
 (c) A=7, B=3, C=5 (d) A=7, B=1, C=6
22. One number is 5 more than the other. If the difference of their square is 45. Find the two numbers.
 (a) 5 and 10 (b) 2 and 7
 (c) 6 and 11 (d) 4 and 9
23. The area of a garden is $(x^2 + 4x - 221)$ square units. If the width of field is $(x - 13)$ units, find the length.
 (a) $(x + 17)$ units (b) $(x+12)$ units
 (c) $(x-12)$ units (d) $(x-17)$ units
24. A pizza shop hire Avni to deliver pizzas. Avni is paid Rs 8 for every pizza, that is delivered but fined Rs 6 for every pizza he fails to deliver or delivers late. If Avni is told to deliver 75 pizzas and gets paid Rs 460, How many pizzas did Avni fail to deliver or delivered late?
 (a) 12 (b) 15
 (c) 10 (d) 20
25. Shaivya went to a mall for shopping. She found that the mall was offering 10% discount on all purchases. In addition, if a shopper's bill exceeded Rs 20,000, after applying the 10% discount offer, the shopper would get an additional 5% discount on the bill amount. If Shaivya's total bill amount was Rs 25,000 at the mall, find how much she paid finally. Also find the total effective discount per cent she got on her purchase.
 (a) 14.5% (b) 11.11%
 (c) 12.5% (d) 14.27%
26. An investment of Rs 1,25,000 shows a loss of 6% the first year, a gain of 8% the second year, and again a loss of 2% in the third year. Find the amount at the end of three years.
 (a) Rs 1,24,362 (b) Rs 1,32,642
 (c) Rs 1,25,000 (d) Rs 1,45,362
27. A tank can be filled by pipe A in 12 hours and pipe B in 15 hours. An outlet C can empty the tank in 20 hours. All the three pipes are opened simultaneously. After 6 hours, pipe C is closed. How many hours are required to fill the tank?
 (a) $2\frac{3}{4}$ Hours (b) $3\frac{2}{3}$ Hours
 (c) $4\frac{2}{3}$ Hours (d) $2\frac{2}{3}$ Hours
28. A regular polygon has 9 diagonals. Find the sum of interior angles of the polygon.
 (a) 540 (b) 720
 (c) 360 (d) 600
29. A rectangular chart paper 220 cm long and 28 cm wide is rolled along its width to make a cylinder of height 28 cm. Find the volume of cylinder.
 (a) 1,07,800 cm³ (b) 1,04,500 cm³
 (c) 1,06,800 cm³ (d) 2,07,800 cm³

30. A bag contains coins of denominations Rs 2, Rs 5 and Rs 10. The probability that a coin selected at random is a Rs 2, Rs 5 and Rs 10 coin is $\frac{5}{8}$, $\frac{1}{5}$ and $\frac{7}{40}$ respectively. Find the ratio of Rs 2, Rs 5 and Rs 10 coins in the bag.
- (a) 5:1:7 (b) 25:8:7
(c) 8:5:40 (d) 20:6:3

Social Studies

31. What was the Immediate cause behind Battle of Plassey?
- (a) The company was worried about his power and keen on a Puppet ruler who would willing give trade concessions and other privileges.
(b) The force led by Mir Jafar, one of Sirajuddaulah's Commanders, never fought the battle.
(c) Sirajuddaulah marched to Calcutta to establish control over the company fort there.
(d) Company also convinced that to expand trade it had to enlarge its settlement, buy up villages, and rebuild its forts.
32. What was reason behind Mahalwari System?
- (a) The revenue that had been fixed was so high that the zamindars found it difficult to pay.
(b) The zamindars did not have an interest in improving the land.
(c) The cultivator found the Zamindari system extremely oppressive.
(d) The charge of collecting the revenue and paying it to the Company was given to the village headman.
33. Which of the following is not a direct result of Revolt of 1857.
- (a) All ruling chiefs of the country were assured that their territory would never be annexed in future.
(b) The British Parliament passed a new Act that transferred the power of the East India Company to the British Crown.
(c) The British decided to respect the customary religious and social practices of the people in India.
(d) It was decided that the proportion of Indian soldiers in the army would be increased and the number of European soldiers would be decreased.
34. Which one of the following Reforms Raja Ram Mohan Roy didn't Fight for or against?
- (a) Practice of Sati
(b) The Knowledge of western education
(c) Equality for women
(d) The knowledge of Ancient Vedic education And Values
35. What did Government of India Act 1935 prescribed?
- (a) Provincial Autonomy
(b) elections in Both Legislatures
(c) Congress will form government
(d) Two nation will be formed
36. Which of the following is not a role of Constitution?
- (a) It lays out certain ideals that form the basis of the kind of country.
(b) A constitution tells us what the fundamental nature of our society is.
(c) Constitution helps people form a powerful nation that would reduce crime and bring a social order.
(d) A constitution helps serve as a set of rules and principles as the basis of the way in which they want the country to be governed.

37. India is a Secular Nation because
- (i) One religious community does not dominate another
 - (ii) The state does not enforce any particular religion.
 - (iii) State intervenes to prevent region-based exclusions.
 - (iv) State does not take away the religious freedom of individuals.
- (a) (i) , (ii) & (iii)
(b) (i) , (ii) , (iii) & (iv)
(c) (i), (ii) & (iv)
(d) (i) & (ii)
38. Which of the following laws are unpopular and undemocratic
- (a) Municipal laws on the use of space within municipal limits making hawking and street vending illegal.
 - (b) Reservations in Govt jobs for SCs, STs & OBCs.
 - (c) Protection of women against domestic violence
 - (d) Freedom of Speech and expression.
39. Minimum wages Act Does not protect:
- (a) Farm Labourers
 - (b) Factory workers
 - (c) Domestic workers
 - (d) Socially & Economically backward Classes.
40. Civil laws does not deal with
- (a) Disputes relating to sale of land.
 - (b) Divorce cases.
 - (c) Harassing a woman to bring more dowry.
 - (d) Inheritance of Property
41. Minerals that lie near the surface are extracted by a process known as
- (a) Open- cast mining
 - (b) Shaft mining
 - (c) Drilling
 - (d) Quarrying
42. Sugarcane Farming is also known as
- (a) Mixed farming
 - (b) Commercial Grain-Farming
 - (c) Plantation
 - (d) Intensive farming
43. Chronological order of various stages of process of converting Iron ore into steel.
- (i) Smelting
 - (ii) Removal of slag
 - (iii) Adding limestone and coal
 - (iv) Refining
- (a) (i) , (ii) , (iii) , (iv)
(b) (iii) , (ii) , (i) , (iv)
(c) (iii) , (i) , (iv) , (ii)
(d) (ii) , (iii) , (i) , (iv)
44. In countries where Death Rates (especially among the very young) are decreasing but Birth Rates are high, the Pyramid Graph is
- (a) Broad at the younger age groups
 - (b) Broad at base and narrows toward top
 - (c) Narrow at the Base
 - (d) Narrow at Base and relatively broad in mid.
45. Drip system is better in regions with
- (a) Uneven Land where sufficient Water is not available
 - (b) Availability of water is poor.
 - (c) Sufficient rainfall
 - (d) Where water is pumped out of wells

Mental Ability

46. Govind went 15 km from his house to North. Then, he turned west and covered 10 km. Then he turned South and covered 5 km. Finally, turning to East, he covered 10 km. Then, he turned South and covered 5 km. In Which direction is he from his house?
- (a) East (b) West
(c) North (d) South
47. If you write down all the numbers from 1 to 100, then how many times do you write 3?
- (a) 11 (b) 18
(c) 20 (d) 21
48. 'Fire' is related to 'Ashes' in the same way as 'Explosion' is related to
- (a) Sound (b) Debris
(c) Explosive (d) Flame
49. There are 50 students admitted to a nursery class. Some students can speak only English and Some can speak only Hindi. Ten students can speak both English and Hindi. If the number of student who can speak English is 21, then how many students can speak Hindi, how many can speak only Hindi and how many can speak only English?
- (a) 39,29 and 11 respectively
(b) 37,27 and 13 respectively
(c) 28,18 and 22 respectively
(d) 21,11 and 29 respectively
50. In the following question, Δ means 'is greater than', $\%$ means 'is lesser than', $=$ means 'is equal to', \neq means 'is not equal to', $+$ means 'is a little more than', \times means 'is a little less than'.
- Choose the correct alternative in each of the following questions
- If $ac \% bd$ and $ab \Delta cd$, then
- (a) $b \leq c$ (b) $b \Delta c$
(c) $a \% c$ (d) Can't say

Rough Work

Rough Work