

QUESTION PAPER (PHASE - I)

CLASS - VIII

ENGLISH (15)

Q1. Select the correct passive form of the given sentence: Let him finish the task.

- (A) Let the task finished by him.
- (B) Let the task be finished by him.
- (C) The task is let finished by him.
- (D) Let him be finished the task.

Q2. Which active-to-passive transformation is CORRECT?

She knows him very well.

- (A) He is known to her very well.
- (B) He is known very well by her.
- (C) He was known by her.
- (D) He is known by her.

Q3. Which sentence uses an abstract noun incorrectly?

- (A) Her honesty was appreciated by everyone.
- (B) The sceneries of Kashmir are breathtaking.
- (C) Childhood is the best phase of life.
- (D) Freedom is priceless.

Q4. Which pronoun is used incorrectly?

- (A) It was she who won the award.
- (B) This is the man whom I met yesterday.
- (C) He introduced himself to the new teacher.
- (D) Between you and I, this plan will fail.

Q5. Which sentence is punctuated correctly?

- (A) She asked me whether I was free, and if I could help her.
- (B) She asked me, whether I was free and if I could help her.
- (C) She asked me whether I was free and, if I could help her.
- (D) She asked me whether, I was free and if I could help her.

Q6. Which of these two pens is _____?

- (A) good
- (B) more good
- (C) better
- (D) more better

Q7. Correct the error:

She is more wiser than her sister.

- (A) Replace 'more wiser' with 'wiser.'
- (B) Replace 'her' with 'she.'
- (C) Replace 'more' with 'most.'
- (D) No correction needed.

Q8. Synonym of the word 'oblivious':

- (A) Aware
- (B) Unaware
- (C) Careful
- (D) Attentive

Q9. Antonym of the word 'conspicuous':

- (A) Hidden
- (B) Noticeable
- (C) Obvious
- (D) Clear

Q10. Which is an intransitive verb?

- (A) She kicked the ball.
- (B) He reads a novel.
- (C) The child sleeps peacefully.
- (D) They played cricket.

Q11. When the teacher entered the class, the students _____.

- (A) leaving
- (B) are leaving
- (C) had leaving
- (D) had left

Q12. He is _____ M. A. in English.

- (A) the
- (B) an
- (C) a
- (D) No article needed

Q13. Not until the seventeenth century _____ to measure the speed of light.

- (A) did anyone even attempt
- (B) anyone did even attempt
- (C) did anyone attempt even
- (D) did even attempt anyone

Q14. Wild strawberries are _____ cultivated strawberries.

- (A) not sweeter
- (B) not as sweet as
- (C) less sweeter than
- (D) not sweet as

Q15. If I were a star, I _____ the needy.

- (A) will helps
(C) would help

- (B) helps
(D) None of the above

MATHEMATICS (15)

Q16. $\left[\left\{ \left(\frac{2}{3} \right)^{-2} \times \left(\frac{256}{625} \right)^{\frac{1}{2}} \right\}^{\frac{-1}{2}} \div \left(\left(\frac{4}{3} \right)^{-2} \right)^3 \right] \times \left(\frac{1}{0.1} \right)^{-1} = \dots\dots\dots$

- (A) $\frac{4^5}{3^6}$ (B) $\frac{4^5}{3^7}$ (C) $\frac{4^6}{3^5}$ (D) $\frac{3^5}{4^6}$

Q17. Twelve-sided dice are used in adventure games. They are marked with the numbers 1 to 12. The score is the uppermost face. If this type of dice is thrown, then what is the probability that the score is a factor of 12?

- (A) $\frac{1}{2}$ (B) $\frac{3}{4}$ (C) $\frac{1}{6}$ (D) $\frac{1}{4}$

Q18. A student rides on a bicycle at 8 km/hour and reaches his school 2.5 minutes late. The next day he increases the speed to 10 km/hour and reaches school 5 minutes early. How far is the school from the house?

- (A) 7 km (B) 6 km (C) 5 km (D) 4.5 km

Q19. A worker was paid \$1,700 during a period of 30 days. During this period he was absent for 4 days and was fined \$15 per day for the absence. He was paid the full salary only for 18 days as he came late on the other days. Those who came late were given only half the salary for that day. Find the total salary paid per month to a worker who came on time every day and was never absent:

- (A) \$2400 (B) \$3000 (C) \$2700 (D) \$2250

Q20. $\frac{3+\sqrt{6}}{5\sqrt{3}-2\sqrt{12}-\sqrt{32}+\sqrt{50}} = ?$

- (A) 3 (B) $3\sqrt{2}$ (C) 6 (D) None of these

Q21. Match the following:

List I		List II	
P.	Add $x^5 + 8x^3 - 7x^2 + 12$ and $-3x^3 + 10x^2 + 8$	1.	$-x^3 - 3x^2 + 3x + 2$
Q.	Subtract $2x^2y + 4x^2y^2 + 3xy^2$ from $5x^2y + 7xy^2$	2.	$-x^3 + x^2 + 3x - 6$
R.	Subtract $2x^3 + 2x^2 - 4x - 4$ from $x^3 - x^2 - x - 2$	3.	$x^5 + 5x^3 + 3x^2 + 20$
S.	Add $x^3 - x^2 - x - 2$ and $2x^2 - 2x^3 + 4x - 4$	4.	$3x^2y + 4xy^2 - 4x^2y^2$

- (A) P-3, Q-4, R-1, S-4 (B) P-3, Q-4, R-1, S-2
(C) P-2, Q-4, R-3, S-1 (D) P-2, Q-3, R-4, S-1

Q22. In the five-digit number $1b6a3$, a is the greatest single-digit perfect cube and twice of it exceeds b by 7. Then the sum of the number and its cube root is _____.

- (A) 18700 (B) 11862 (C) 25320 (D) 19710

Q23. $(x^2+3x+5)(x^2-3x+5) = m^2-n^2$, what is the value of m ?

- (A) x^2-3x (B) $3x$ (C) x^2+5 (D) x^2+3x

Q24. A term ma^nb^p should be added to $49a^4 + 50a^2b^2 + 16b^4$ to make it a perfect square. What is the value of $(m + n + p)$?

- (A) 6 (B) 10 (C) 8 (D) 12

Q25. The sum of the radius of the base and height of a solid cylinder is 37 m. If the total surface area of the cylinder be 1628 sq m, its volume is :

- (A) 4620 m^3 (B) 4630 m^3 (C) 4520 m^3 (D) 4830 m^3

Q26. Find the total surface area of a cube whose volume is 343 cm^3 .

- (A) 350 cm^2 (B) 494 cm^2
(C) 200 cm^2 (D) 294 cm^2

Q27. What is the square root of $9 + 2\sqrt{14}$?

- (A) $1 + 2\sqrt{2}$ (B) $\sqrt{3} + \sqrt{6}$ (C) $\sqrt{2} + \sqrt{7}$ (D) $\sqrt{2} + \sqrt{5}$

Q28. An experiment yields 3 mutually exclusive and exhaustive events A, B, and C.

If $P(A) = 2$ $P(B) = 3$ $P(C)$, then $P(A)$ is:

- (A) $\frac{2}{11}$ (B) $\frac{3}{11}$ (C) $\frac{5}{11}$ (D) $\frac{6}{11}$

Q29. If $10^{3x} = 125$, then value of 10^{-2x} is :

- (A) $\frac{1}{5}$ (B) $\frac{1}{25}$ (C) $-\frac{1}{25}$ (D) 25

Q30. If $a + b + c = 14$, $ab + bc + ca = 47$ and $abc = 15$ then find the value of $a^3 + b^3 + c^3$.

- (A) 815 (B) 825 (C) 835 (D) 845

PHYSICS (5)

Q31. A man is standing on loose sand wearing shoes with pointed heels. Compared to flat shoes, the pressure exerted by him on the land will be:

- (A) less, because the area is small
- (B) more, because the area is small.
- (C) same, as weight is unchanged.
- (D) zero, since pressure does not depend on area.

Q32. A hydraulic lift uses Pascal's law. If a small piston with area 0.01 m^2 is pushed with 100 N, what force is generated on a larger piston of area 0.5 m^2 ?

- (A) 100 N
- (B) 500 N
- (C) 5000 N
- (D) 1000 N

Q33. Which of the following situations shows useful friction?

- (A) Wear and tear of machine parts
- (B) Skidding of vehicles on a wet road
- (C) Walking without slipping
- (D) Heat produced in brake shoes

Q34. A lightning conductor on a building is connected to:

- (A) plastic rod fixed on the roof
- (B) thick copper strip ending deep inside the Earth
- (C) an iron plate kept on the roof
- (D) wooden plank buried in the soil

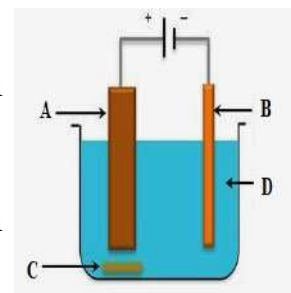
Q35. The epicenter of an Earthquake is _____.

- (A) the point deep inside Earth where the earthquake originates.
- (B) the point on Earth's surface directly above the focus.
- (C) the region where maximum damage occurs always.
- (D) the place where earthquake waves are first recorded.

CHEMISTRY (5)

Q36. Identify A, B, C and D from the given diagram. The given diagram shows the electro- refining of copper.

- (A) A - Cathode (Pure Copper) B - Anode (Impure Copper)
C - Cathode mud D- Acidified copper sulphate solution
- (B) A - Cathode (Impure Copper) B - Anode (Pure Copper)
C - Cathode mud D- Acidified copper sulphate solution
- (C) A - Anode (Impure Copper) B - Cathode (Pure Copper)
C - Anode mud D- Acidified copper sulphate solution
- (D) A - Anode (Pure Copper) B - Cathode (Impure Copper)
C - Anode mud D- Acidified copper sulphate solution



Q37. Why is coke used in the extraction of metals instead of coal?

- (A) Coke acts as a reducing agent. (B) Coke is lighter than coal.
(C) Coke produces colorful flames. (D) Coal cannot be burned.

Q38. Which of the following is petroleum by product used in medicines and cosmetics?

- (A) Bitumen (B) Paraffin wax (C) Diesel (D) Kerosene

Q39. A candle burns with a yellow luminous flame in normal air. If the same candle is placed inside a jar of pure oxygen, the flame turns bluish. This happens because ____.

- (A) oxygen increase the soot formation.
(B) oxygen absorbs carbon particles.
(C) yellow color is not possible in oxygen.
(D) high oxygen supply causes complete combustion.

Q40. Which of the following observation best distinguishes the luminous zone from the non-luminous zone of a flame?

- (A) Luminous zone gives less light
(B) Luminous zone produces soot while non-luminous does not
(C) Luminous zone has maximum temperature
(D) Both zones contain no oxygen

BIOLOGY (5)

Q41. Which of the following is a correct application of micro-organisms in industry?

- (A) Yeast in bread making due to lactic acid fermentation.
- (B) Lactobacillus in vinegar production by alcohol fermentation
- (C) Penicillium in antibiotic production due to secretion of penicillin
- (D) Algae in oxygen removal during water purification.

Q42. A farmer notices that milk in the summer season turns sour faster than in winter.

The main scientific reason is:

- (A) Lactobacillus grows faster at high temperature
- (B) Milk proteins break down quickly in heat
- (C) Fats in milk get oxidized
- (D) Enzymes in milk become inactive in cold

Q43. A boy's voice cracks during adolescence. This mainly happens because:

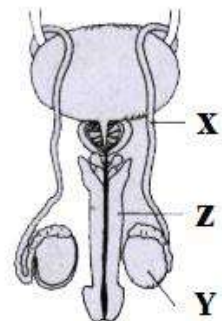
- (A) voice box stops vibrating
- (B) vocal cord shrinks during puberty
- (C) oxygen intake reduces during growth
- (D) voice box grows rapidly and vocal cord lengthens

Q44. Which of the following is not a secondary sexual characteristic in boys?

- (A) Broadening of shoulders
- (B) Production of sperm
- (C) Increase in height
- (D) Growth of beard and moustache

Q45. Refer to the given diagram of human male reproductive system and select the incorrect statement regarding parts X, Y and Z.

- (A) Z transfers sperms into the vagina of female during coitus.
- (B) Y is similar in function to ovaries of female.
- (C) X conducts sperms from testis to urethra.
- (D) Y lies within scrotum in the abdominal cavity.



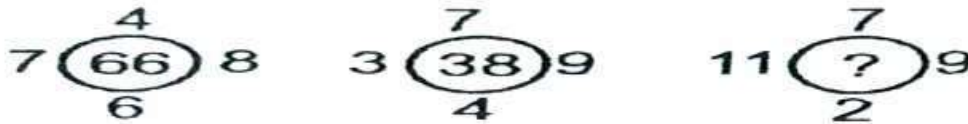
APTITUDE (15)

Q46. Which option will replace the question mark?

1, 6, 36, 240, 1960, ?

- (A) 19600 (B) 19660 (C) 36800 (D) 35400

Q47. Find the missing number, if same rule is followed in all the three figures.



- (A) 108 (B) 91 (C) 116 (D) 119

Q48. Number of letters in between adjacent letters in the series decrease by two, which of the following series observes this rule?

- (A) FQWBG (B) HQXCF (C) TBINO (D) XFMQU

Q49. If FEED is coded as 47 and TREE is coded as 91, then MEET will be coded as:

- (A) 110 (B) 114 (C) 118 (D) 122

Q50 . A and B start walking in opposite direction. A walked 5 km, B walked 6 km. Thereafter, both turn to their right and walked 2 km. They turn to right again and walked 3 km, again turn to right and walked 2 km. How much distance apart are they from each other?

- (A) 2 km (B) 13 km (C) 3 km (D) 5 km

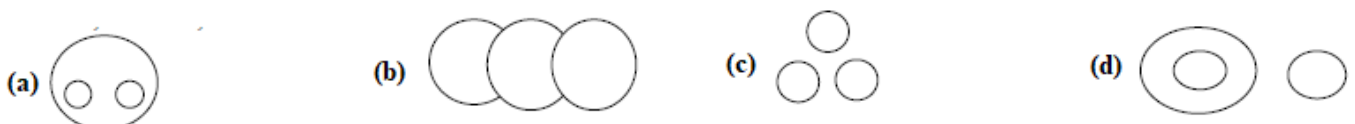
Q51. There is a certain relationship between the left pair of words. Establish the same relationship in the right pair and find the missing word.

Ornithology: Birds::Ichthyology: _____

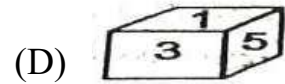
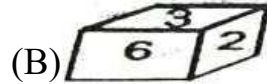
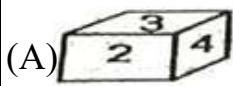
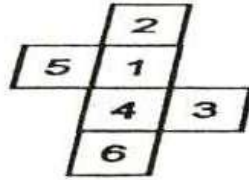
- (A) Fish (B) Animals (C) Algae (D) Fungi

Q52. Which of the following Venn-diagrams represents the relationship amongst.

Batsman, Cricket, Stick



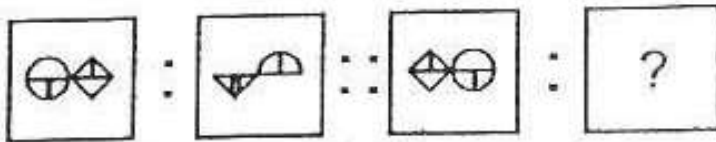
Q53. Which of the following cubes can be formed, if the given sheets of paper is folded to form a cube?



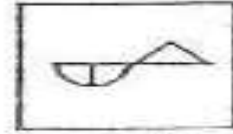
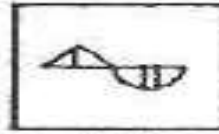
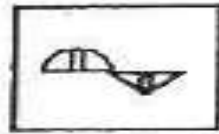
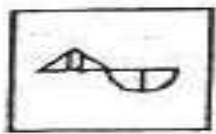
Q54. What was the day on 1st January, 2020?

- (A) Wednesday (B) Thursday (C) Tuesday (D) Sunday

Q55. Problem Figures



Answers Figures



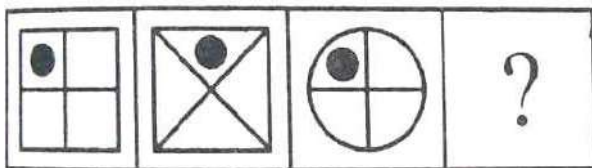
(A)

(B)

(C)

(D)

Q56. Select a figure from the options, which continue the same series as established by the problem figures.

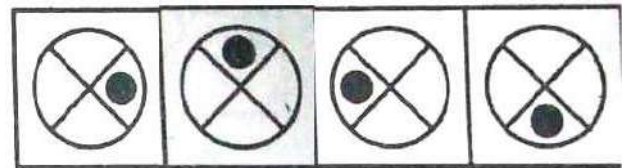


A

B

C

D



1

2

3

4

(A) 1

(B) 2

(C) 3

(D) 4

Q57. In a row of 40 children, P is 13th from the left end and Q is 9th from the right end. How many children are there between P and R, If R is 4th to the left of Q?

(A) 12

(B) 13

(C) 14

(D) 15

Q58. The calendar for the year 2006 is the same as for the year:

(A) 2010

(B) 2012

(C) 2017

(D) 2013

Q59. Rahul told Anand, "Yesterday I defeated the only brother of the daughter of my grandmother." Whom did Rahul defeat?

- (A) Son (B) Father (C) Brother (D) Father-in-law

Q60. If L stands for +, M stands for -, N stands for $\times$, P stands for $\div$, then

14N10L42P2M8=?

- (A) 153 (B) 216 (C) 248 (D) 120