Practice Set-8

Part—I
General Intelligence

1. AZBZ : CYDY : : EXFX : ?
   (A) GWHW (B) IVJW
   (C) HWIW (D) FWFV

2. QYGO : SAIQ : : UCKS : ?
   (A) WEMU (B) WDMV
   (C) WDLU (D) VENU

3. ww _ x _ x _ y y z z_
   (A) w x x (B) w x y z
   (C) x w z w (D) w z x y

4. m_n m_n – a n_a_ma_
   (A) a a m n a n (B) a m m a n m
   (C) a a m m n n (D) a m a m m n

5. A is the mother of D and sister of B. B has a daughter C who is married to F. G is the husband of A. How is G related to D ?
   (A) Husband (B) Son
   (C) Father (D) Uncle

6.

9	10	11
5	7	8
19	22	?

   (A) 25 (B) 24
   (C) 19 (D) 41

7. Some equation are solved on the basis of certain system. Find out the correct answer for the unsolved equation on that basis 2 × 3 × 7 = 4949, 5 × 9 × 4 = 258116, 4 × 6 × 8 = ?
   (A) 16128 (B) 81216
   (C) 162432 (D) 163664

8. A solid red coloured cube is painted yellow on all sides. The cube is cut into 125 equal cubes. How many sides will have 3 sides yellow ?
   (A) 4 (B) 8
   (C) 12 (D) 10

9. Arun travels 8 km towards the North, turns left and travels 3 km and then again turns, right and covers another 4 km and then turns right and travels another 3 km. How far is he from the starting point ?
   (A) 11 km (B) 12 km
   (C) 15 km (D) 18 km

10. What should come in place of question mark (?).
    5. 7. 11. ?. 35. 67
    (A) 17 (B) 19
    (C) 20 (D) 21

11. Which one of the following is different from the other three ?
    (A) Apple (B) Mango
    (C) Watermelon (D) Guava

12. If in a code PREMIER is written as XOILSIO, ANTAGONISE is written as MQNMZB-QSXI, then how can REPORT be written in the same code ?
    (A) OIXBMN (B) OIXBON
    (C) OIQBOM (D) QIXBOZ

13. Which one of the following is different from the other three ?
    (A) 20-10 (B) 15-12
    (C) 30-18 (D) 45-27

14. How many 9's are there in the number series which are followed by 2 or 3 or 4 or 5 ?
    939294959592090929394959699989492939 49596999899999293
    (A) 12 (B) 10
    (C) 18 (D) 16

Directions—(Q. 15–16) A Bus starts from point 'S' and runs 10 km towards North. It takes a right turn and run 15 km. It now runs 6 km after taking a left turn. It finally takes a left turn, runs 15 km and stops at point 'T'.

15. How far is point 'T' with respect to point 'S' ?
(A) 15 km (B) 16 km
(C) 20 km (D) 25 km

16. Towards which direction was the vehicle moving before it stopped point 'T' ?
(A) West (B) South
(C) North (D) East

17. Given the 25th February 2008 is Monday, what day is 2nd March of 2008 ?
(A) Tuesday (B) Saturday
(C) Sunday (D) Monday

18. Age of Nareen is equal to Naveen as they are twins. Nakul is younger than Nareen. Priyanka is younger than Balaji but elder than Naveen. Who is the eldest of all ?
(A) Nareen (B) Balaji
(C) Nakul (D) Naveen

19. Given interchanges : signs '+' and '–' number 8 and 10—
(A) 8 – 10 + 6 = 12 (B) 10 – 8 + 7 = 4
(C) 10 + 8 – 9 = 16 (D) 10 + 8 – 3 = 10

20. Cause and effect relationship : RACE : FATIGUE—
(A) TRACK : ATHLETE
(B) ANT : BUG
(C) FAST : HUNGER
(D) WALKING : RUNNING

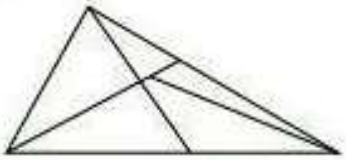
21. Grammatical Relationship : RESTORE : CLIMB—
(A) INTO : NYMPH
(B) PRECIPICE : ALTHOUGH
(C) SEGREGATION : SEEM
(D) OVERPOWER SETHE

22. Numerical relationship 4 : 12—
(A) 10 : 16 (B) 3 : 4
(C) 9 : 27 (D) 12 : 6

23. Which of the following is wrongly matched ?
(A) Red Fort, Delhi
(B) Great Wall of China, China
(C) Humayun Tomb, Delhi
(D) White House, Moscow

24. How many such pairs of digits are there in the number 95137248 each of which has as many digit between them in the number as when they are arranged in ascending order ?
(A) One (B) Two
(C) Three (D) None

25. How many triangle are there in the adjoining figure ?



(A) 12 (B) 10
(C) 6 (D) 11

Directions—(Q. 26–28) Select the related word/letters/number from the given alternatives.

26. CAT : 21 :: DOG : ?
(A) 23 (B) 24
(C) 25 (D) 26

27. Painting : Art :: ? : Dance
(A) Meerabai (B) Function
(C) Kathak (D) Tabla

28. ADIP : DGLS : : BEJQ : ?
(A) EHMT (B) EJQU
(C) CGLS (D) FINU

29. Find the missing number
10, 12, 9, 13, 8, ?, 7
(A) 11 (B) 7
(C) 14 (D) 12

Directions—(Q. 30–32) Find the odd number/ letters/word from the given alternatives.

30. (A) Heart (B) Kidney
(C) Spleen (D) Liver

31. (A) ACEG (B) MOQS
(C) GHJL (D) RTVX

32. (A) 1 (B) 2
(C) 3 (D) 4

33. Arrange the following in dictionary order. Then which will be the third word ?
1. Particular 2. Particle
3. Participate 4. Partiality
(A) 2 (B) 3
(C) 4 (D) 1

34. If D is the daughter of A, D is the sister of M and A's brother is C, how are C and M related ?
(A) Mother and Daughter
(B) Uncle and Niece
(C) Father and Daughter
(D) Aunt and Niece

35. From the given alternative words, select the word which **cannot** be formed using the letters of the given word—
INTERDEPENDENCE
(A) DEPENDENT
(B) INTEND
(C) INCENT
(D) INCIDENT

36. If RATE is written as SBUF, then FIRE can be written as—
(A) HJSF (B) GJSF
(C) GJFS (D) JGSF

37. Which one of the given responses can be inserted to make a meaningful word ?
A L – – T
(A) TE (B) ER
(C) FE (D) AT

Directions—(Q. 38–40) A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

38. 10, 11, 14, 23, 50, ?
(A) 110 (B) 104
(C) 70 (D) 131

39. 15, 20, 30, ?, 65
(A) 40 (B) 45
(C) 50 (D) 60

40. 37, 32, 26, 19, ?
(A) 10 (B) 11
(C) 12 (D) 13

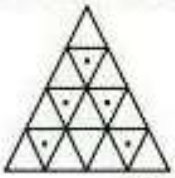
41. Identify the correct response from the given following symbols—
2 (27 * 3) * 30 * 30 * 18
(A) + – = + (B) × + ÷ =
(C) + – ÷ = (D) ÷ + – =

42. Which answer figure will complete the pattern in the question figure ?

Question Figure

Answer Figures

43. Find out the number of triangles with dots—



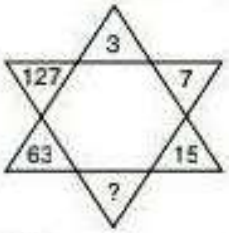
(A) 5 (B) 8
(C) 10 (D) 16

44. In the following diagram, the circle represents Cricket players, the triangle represents Hockey

players and the square represents Football players. How many play both Football and Hockey ?
(A) 7 (B) 9
(C) 11 (D) 4

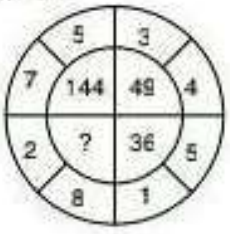
Directions—(Q. 45–46) Select the missing number from the given responses—

45.



(A) 37 (B) 35
(C) 31 (D) 29

46.

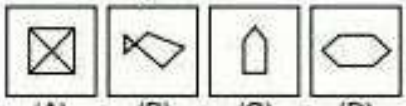


(A) 100 (B) 81
(C) 64 (D) 121

47. Which of the answer figure is embedded in the question figure ?

Question Figure

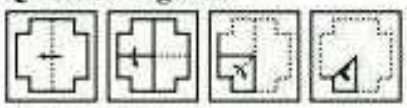
Answer Figures



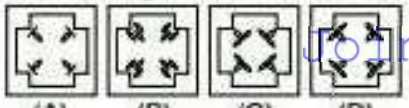
(A) (B) (C) (D)

48. A square piece of paper with its corners cut is folded as shown below. From the given responses, indicate how it will appear when opened ?

Question Figures



Answer Figures

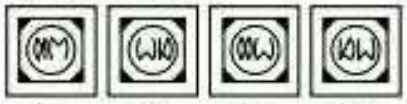


(A) (B) (C) (D)

49. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure ?

Question Figure

Answer Figures



(A) (B) (C) (D)

50. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, *e.g.*, 'S' can be represented by 03, 44, etc., and 'R' can be represented by 69, 78 etc. Similarly, you have to identify the set for the word 'PUPIL'.

Matrix I

	0	1	2	3	4
0	P	U	L	S	E
1	U	L	S	E	P
2	L	S	E	P	U
3	S	E	P	U	L
4	E	P	U	L	S

Matrix II

	5	6	7	8	9
5	R	A	D	I	O
6	A	D	I	O	R
7	D	I	O	R	A
8	I	O	R	A	D
9	O	R	A	D	I

(A) 41, 10, 32, 85, 86
(B) 32, 85, 23, 76, 12
(C) 23, 33, 41, 58, 90
(D) 41, 33, 32, 85, 43

Answers with Explanations

1. (A) As, A Z B Z
(+2) (−1) (+2) (−1)
C Y D Y

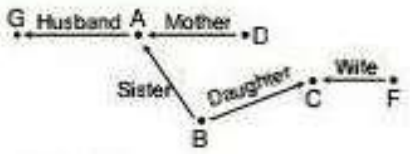
Same as, E X F X
(+2) (−1) (+2) (−1)
G W H W

2. (A) As. Q Y G O
(+2) (+2) (+2) (+2)
S A I Q

Same as, U C K S
(+2) (+2) (+2) (+2)
W E M U

3. (B) w w **w** / x x **x** / y y **y** / z z **z**
4. (C) m **a** n / m **a** n / **m** a n / **m** a **n** / m a **n**

5. (C) From relation diagram—



Hence, G is D's father.

6. (B) As, $9 + 5 + \boxed{5} = 19$

and $10 + 7 + \boxed{5} = 22$

Same as, $11 + 8 + \boxed{5} = 24$

7. (D) As.

$2 \times 3 \times 7 \Rightarrow (2)^2\,(3)^2\,(7)^2$

$= 4949$

and $5 \times 9 \times 4 \Rightarrow (5)^2\,(9)^2\,(4)^2$

$= 258116$

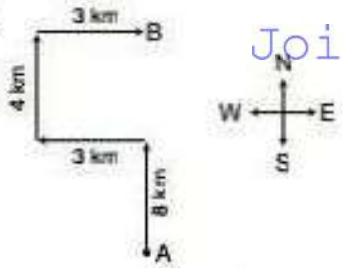
Same as,

$4 \times 6 \times 8 \Rightarrow (4)^2\,(6)^2\,(8)^2$

$= 163664$

8. (B) Eight corners cube will have three sides yellow colour.

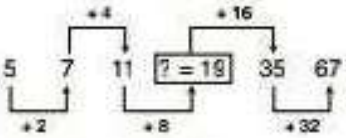
9. (B)



$\therefore$ AB = (8 + 4) km

= 12 km

10. (B)



11. (C) Rest are same size.

12. (B) As. P R E M I E R

↓ ↓ ↓ ↓ ↓ ↓ ↓

X O I L S I O

and A N T A G O N I S E

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

M Q N M Z B Q S X I

Same as, R E P O R T

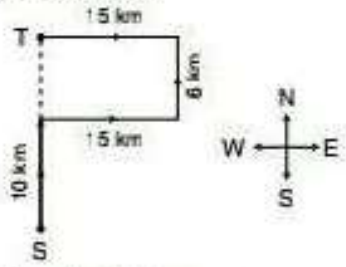
↓ ↓ ↓ ↓ ↓ ↓

O I X B O N

13. (A) In rest both the numbers are divisible by 3.

14. (C)

For Q. 15 and 16 :



15. (B) $\therefore$ Required distance

TS = (10 + 6) km

= 16 km

16. (A) The vehicle was moving in west direction.

17. (C) Feb. (Leap Year) March March

25 26 27 28 29 1 2

↓ ↓ ↓ ↓ ↓ ↓ ↓

Mon. Tue. Wed. Thu. Fri. Sat. Sun.

18. (B) Balaji > Priyanka > Nareen

= Naveen > Nakul

19. (A) $8 - 10 + 6 = 12$

$\Rightarrow \quad 8 + 10 - 6 = 18 - 6$

$= 12$

20. (C) As, 'RACE' is related with 'FATIGUE'. Same as, 'FAST' is related with 'HUNGER'.

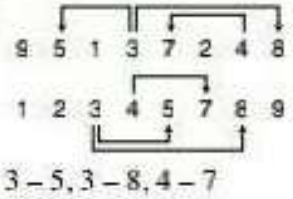
21. (C) As, 'RESTORE' is related with 'CLIMB'. Same as 'SEGREGATION' is related with 'SEEM'.

22. (C) As, $4 \times 3 = 12$

Same as, $9 \times 3 = 27$

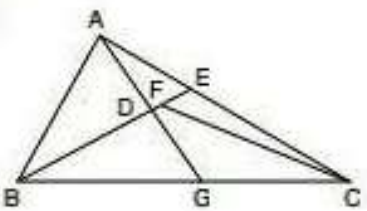
23. (D) 'White House' is in New York.

24. (C)



3 – 5, 3 – 8, 4 – 7

25. (B)



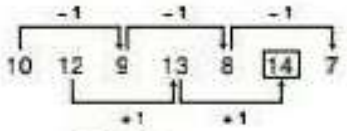
Required number of triangles
= ABC, ABD, AED, ABG, AGC, EFC, ABE, BDG, BEC, BFC
= 10

26. (A) CAT : 21 : : DOG : 23

27. (B) Painting is a part of Art and Dance is a part of function.

28. (A) A $\xrightarrow{+2}$ D B $\xrightarrow{+2}$ E
D $\xrightarrow{+2}$ G ∴ E $\xrightarrow{+2}$ H
I $\xrightarrow{+2}$ L J $\xrightarrow{+2}$ M
P $\xrightarrow{+2}$ S Q $\xrightarrow{+2}$ T

29. (C)



30. (C) 31. (C)

32. (D) 1, 2 and 3 are only divisible by themselves while 4 is divisible by 2 also.

33. (A) Partiality, Participate, Particle, Particular.

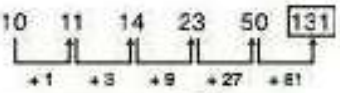
34. (B)

35. (D) 'INTERDEPENDENCE' does not contains two I's. Therefore, 'INCIDENT' word can't be formed.

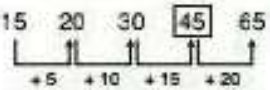
36. (B) R $\xrightarrow{+1}$ S F $\xrightarrow{+1}$ G
A $\xrightarrow{+1}$ B ∴ I $\xrightarrow{+1}$ J
T $\xrightarrow{+1}$ U R $\xrightarrow{+1}$ S
E $\xrightarrow{+1}$ F E $\xrightarrow{+1}$ F

37. (B)

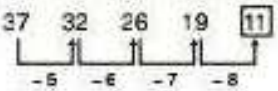
38. (D)



39. (B)



40. (B)



41. (D)
$2(27 \div 3) + 30 - 30 = 18$
$2(9) + 30 - 30 = 18$
$18 + 30 - 30 = 18$
$18 = 18$
L.H.S. = R.H.S.

42. (A) 43. (D) 44. (B)

45. (C) $3 \times 2 + 1 = 7$
$7 \times 2 + 1 = 15$
$63 \times 2 + 1 = 127$
$15 \times 2 + 1 = 31$

46. (A) $(3 + 4)^2 = 49$
$(5 + 1)^2 = 36$
$(7 + 5)^2 = 144$
$(8 + 2)^2 = 100$

47. (C) 48. (D) 49. (A) 50. (D)

Part—II
English Language

Directions—(Q. 1–3) In each of the following questions a bold printed part of the sentence may have an error. The sentence may be made meaningful and correct by replacing the bold printed part with one of the given alternatives (A), (B), (C) and (D). The number of that alternative is the answer.

1. **Shapes** of gods and goddesses are worshipped by people ?
(A) Images (B) Reflections
(C) Clay shapes (D) Clay toys

2. We **cannot always convey** ourselves in simple sentences—
(A) cannot always convey
(B) can not always express
(C) cannot always express
(D) No correction required

3. One of most significant **phenomenons** of our time has been the development of the cinema—
(A) phenomenon
(B) phenomena
(C) phenomenonna
(D) No correction required

Directions—(Q. 4–5) Some proverbs idioms are given below with their meanings. Choose the correct meaning of the proverb/idiom.

4. To catch a tarter—
(A) To trap wanted criminal with great difficulty
(B) To catch a dangerous person
(C) To meet with disaster
(D) To deal with a person who is more than one's watch

5. To be above board—
   (A) To have a good height
   (B) To be honest in any business deal
   (C) To have no debts
   (D) To try to be beautiful

Directions—(Q. 6–7) In questions given below, out of the four alternatives, choose the one which can be substituted for the given words/ sentences—

6. One who is fond of fighting—
   (A) Bellicose (B) Aggressive
   (C) Belligerent (D) Militant

7. Tending to move away from the centre or axis—
   (A) Centrifugal (B) Centripetal
   (C) Axiomatic (D) Awry

Directions—(Q. 8–12) In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, four words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

Studies of cognitive development have shown that the child's ability to use generalised **...(8)...** develops more slowly in history than in any other school subjects. This typical development of reasoning in historical **...(9)...** makes it necessary for the historian to focus upon events that may be included in the text. In many cases, the historian may need to **...(10)...** with special effort a generalised understanding of key concepts to be used in reference. This **...(11)...** may well mean that school history cannot cover as many events as it does at present. Also, school histories may have to provide for topic work or theme-based description rather than merely observe ...**(12)**... conformity.

8. (A) tasks (B) concept
   (C) procedures (D) theories
9. (A) chronology (B) arena
   (C) perspective (D) conformity
10. (A) tackle (B) grapple
    (C) provide (D) deliver
11. (A) necessity (B) requirement
    (C) understanding (D) rationale
12. (A) internal (B) metaphorical
    (C) eternal (D) chronological

Directions—(Q. 13–17) Sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.

13. The computer ..... nonsense because there was a mistake in the programming.
    (A) produces (B) produced
    (C) will produce (D) produce
14. That farmer may be old but he is.....
    (A) less energetic (B) more energetic
    (C) most energetic (D) energetic
15. The monitor takes care ..... the class ..... the absence of the teacher.
    (A) in; at (B) of; in
    (C) during; in (D) of; for
16. When he saw the fish swimming ..... the river, he was extremely happy.
    (A) on (B) besides
    (C) in (D) at
17. The truck was ..... when the bus rammed into it.
    (A) stationery (B) machinary
    (C) machinery (D) stationary

Directions—(Q. 18–20) Out of the four alternatives, choose the one which best expresses the meaning of the given word.

18. Right
    (A) Correct (B) Marked
    (C) Straight (D) Finished
19. Apprehended
    (A) Understood (B) Arrested
    (C) Feared (D) Questioned
20. Genuine
    (A) Real (B) Unreal
    (C) Similar (D) False

Directions—(Q. 21–23) Choose the word opposite in meaning to the given word.

21. Guilty
    (A) Good (B) Innocent
    (C) Ingenious (D) Foolish

22. Brutality
(A) Mercy (B) Bestiality
(C) Cruelty (D) Humanity

23. Fat
(A) Clean (B) Mean
(C) Weak (D) Lean

Directions—(Q. 24 and 25) Groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

24. (A) Posibility (B) Possibility
(C) Possiblity (D) Possebility

25. (A) Cuffe (B) Cough
(C) Cuf (D) Kough

Directions—(Q. 26–40) Read the following passage carefully and answer the questions given below it. Certain words/phrases/sentences have been printed in **bold**/*italics* to help you locate them while answering some of the questions.

"The best man in the whole tribe is Manute the brave", everyone would say. *You could see for yourself, at any time of the day, just how brave he was. He would jump to the ground from amazing heights, he would fight poisonous snakes, he would catch scorpions with his bare hands, and could cut the palm of his own hand with a knife-without even a flinch.* They said the exact opposite about Pontoma. No one had seen him catch even a monkey.

One day, they happened upon each other in the forest, and Manute was showing Pontoma a coral snake he had just caught, when there began a downpour, the likes of which no one had ever seen. The both ran to shelter themselves under some thick foliage, and there they **stayed** until the rain had stopped.

However, when they were about to leave the shelter, they heard the roar of a tiger, at a distance of only a couple of metres. The foliage was very thick and **dense,** and the tiger wouldn't be able to get through it to attack them. However, the tiger was almost at the entrance hole. If it happened to come in and find the two tribesmen there, they certainly wouldn't get out alive. Manute was getting restless. *He wanted to get out of that tight hole, and confront the tiger in open space, where he could fully use his great hunting skills.* Pontoma was gesturing at him to keep still and be quiet, but Manute, tired of being stuck with a coward, leapt out of the thicket, surprising the tiger.

The tiger suffered a couple of deep wounds, but soon recovered and hurt Manute with two swipes of its paw, throwing him to the ground. The tiger took the initiative, and leapt upon Manute, but Manute's spear, in the hands of Pontoma, interrupted the tiger's attack. The tiger turned away, wounded, but the spear moved as fast as a beam of light, and with incredible precision, hurting the animal again and again, until it fell to the ground, **lifeless.**

Manute, shocked, and bleeding freely from his injuries, witnessed all his while lying flat on his back on the ground. Never before had he seen anyone **take on** a tiger, and use the spear with such **calmness** and strength, as he had seen Pontoma do just now. Neither of them said a thing. Manute's grateful expression needed no words to be understood. Nor did they need words to know about Pontoma's wounded hand, *or the fact that they were leaving a tiger skin there in the forest.*

From that day on, people gradually remarked less on Manute's braveness. They thought may be he was less courageous than before. The strangest thing was that they now noticed that Manute's old spear was among Pontoma's things. But Manute just smiled, and remembered the day he learned that true bravery lay not in seeking out danger, but in controlling one's fear when danger crosses your path.

26. What did Manute learn from Pontoma ?
(A) That to be brave, one needs to have friends around who can help in times of crisis
(B) That to be brave, one needs to keep on practicing all the time
(C) That to be brave, one needs to face his fear in times of danger
(D) That to be brave, one needs to know how to use the spear effectively
(E) That to be brave, one needs to look for danger all the time

27. Which of the following is **false** in the context of the story ?
(A) Manute was grateful to Pontoma for saving him from the clutches of the tiger
(B) Manute did manage to inflict a few deep wounds on the tiger
(C) Pontoma came out unscathed from the fight with the tiger

(D) In the fight that ensued, the tiger had injured Manute
(E) Pontoma saved Manute's life

28. How did Manute's old spear possibly come in Pontoma's possession ?
(A) Manute did not want the spear anymore as it was old and had given it to Pontoma
(B) Everyone had insisted that Pontoma keep the spear as he had faced the tiger bravely
(C) Pontoma and Manute were best of friends and shared all their things
(D) Pontoma had used the spear to attack the tiger and it remained with him
(E) Pontoma had liked the spear and had asked Manute to lend it to him

29. "*or the fact that they were leaving a tiger skin there in the forest.*" What event in the story does this line signify ?
(A) The bravery of Manute
(B) The start of the enmity between Manute and Pontoma
(C) The death of the tiger
(D) The loss incurred by Manute an Pontoma
(E) The littering in the forest

30. What did Manute and Pontoma do when it started raining ?
(A) They got wet and ran towards their respective homes
(B) They decided to share stories of bravery with each other
(C) They decided to attack a tiger in the forest to pass their time
(D) They took shelter in dense foliage till the rain stopped
(E) They looked at coral snakes till the rain stopped

31. Which of the following characteristics can be attributed to Pontoma from the story ?
(1) Humble
(2) Courageous
(3) Talkative
(A) Only (1) and (3)
(B) Only (1)
(C) All (1), (2) and (3)
(D) Only (3)
(E) Only (1) and (2)

32. Which of the following can be the most appropriate title for the passage/story ?
(A) The Life In A Jungle
(B) The Friendship Between Manute and Pontoma
(C) Manute's Antics
(D) The Silent Brave Man
(E) The Tiger and Manute

33. "*You could see for yourself, at any time of the day, just how brave he was. He would jump to the ground from amazing heights, he would fight poisonous snakes, he would catch scorpions with his bare hands, and could cut the palm of his own hand with a knife-without even a flinch.*" What aspect of Manute's personality does this sentence portray ?
(A) Boastfulness (B) Helpfulness
(C) Laziness (D) Cheerfulness
(E) Peacefulness

34. "*He wanted to get out of that tight hole, and confront the tiger in open space, where he could fully use his great hunting skills.*" How can this sentence be best reframed without changing its meaning ?
(A) Being stuck in a hiding place, he wanted the tiger to tackle him as he was good at hunting
(B) Tackling the tiger, he wanted to hone his hunting skills by coming out of his hiding place
(C) Being stuck in a hiding place, he wanted to tackle the tiger for his hunting skills
(D) The tiger possessing good hunting skills, wanted him to come out of his hiding place and tackle him
(E) Being good at hunting, he wanted to tackle the tiger by coming out of his hiding place

35. Which of the following characteristics can be attributed to Manute from the story ?
(1) Energetic
(2) Evil
(3) Coward
(A) Only (2)
(B) Only (1)
(C) Only (1) and (2)

(D) Only (2) and (3)
(E) All (1), (2) and (3)

Directions—(Q. 36–38) Choose the word/ group of words which is **most similar** in meaning to the word/ group of words printed in **bold** as used in the passage.

36. **TAKE ON**
(A) Ride (B) Fight
(C) Convince (D) Buy
(E) Lift

37. **LIFELESS**
(A) Dead (B) Tired
(C) Unconscious (D) Weak
(E) Alive

38. **STAYED**
(A) Resided (B) Remained
(C) Continued (D) Lived
(E) Slept

Directions—(Q. 39 and 40) Choose the word/ group of words which is **most opposite** in meaning to the word/group of words printed in **bold** as used in the passage.

39. **CALMNESS**
(A) Tranquility (B) Arrogance
(C) Turbulence (D) Expertise
(E) Anxiety

40. **DENSE**
(A) Sparse (B) Dark
(C) Thick (D) Bright
(E) Flimsy

Directions—(Q. 41–45) In each of the following questions, a sentence/s contain/s a blank space. You have to choose from the options (A), (B), (C), (D) and (E) and fill in the blank in such a manner that it completes the sentence/s in the most meaningful and grammatically appropriate manner.

41. The Manager realized that the clerk had forgotten to do his job and thus ..... for the loss to the Company.
(A) knew about (B) created
(C) hold guilty (D) was responsible
(E) makes up

42. His vision is very poor but he refuses to do anything about it. ..... before he loses his eye-sight completely.
(A) It is swiftly
(B) It won't be long
(C) Not soon
(D) He will very quickly
(E) It is time

43. ..... having worked really hard in office, Vilas did not get the much expected promotion.
(A) Inspite of (B) On
(C) Since (D) Despite of
(E) Besides

44. Tonight's game was ..... because of the rain.
(A) struck of (B) called off
(C) winning (D) played
(E) cancelled

45. Riya did not care about me at all, I knew this as she had not even ..... when I told her that I had failed in the exams.
(A) console me (B) outspoken
(C) seen me (D) closed her eyes
(E) batted an eyelid

Directions—(Q. 46–50) In each of the following questions a short story is given with one of the lines in the story missing and represented by a blank. Select the best out of the five answer choices given to make the story complete and coherent.

46. An elderly carpenter told his employer-contractor of his plans to retire from the house-building business to live a more leisurely life with his wife and enjoy his extended family. The contractor was sorry to see his good worker go and asked if he could build just one more house as a personal favour. The carpenter said yes, but overtime it was easy to see that his heart was not in his work. He resorted to shoddy workmanship and used inferior materials. When the carpenter finished his work, his employer came to inspect the house and said. ....." The carpenter was shocked ! What a shame ! If he had only known he was building his own house, he would have done it all so differently.

(A) "This house is going to collapse in no time.
(B) "You have done a remarkable job.
(C) "This is your house, my gift to you.
(D) "What a bad job you have done!
(E) "I wanted to gift this house to my relative.

47. Once a boy who wanted to buy a puppy went to a store. "Mister," he said to the owner, "I want to buy one of your puppies." The owner called all the puppies outside with a whistle. Out from the doghouse and to the fence ran four little balls of fur. Slowly another little ball appeared; this one noticeably smaller. Then in a somewhat awkward manner the little pup began hobbling toward the others, doing its best to catch up. ....." the little boy said, pointing to the runt. The owner knelt down at the boy's side and said, "Son, you don't want that puppy. He will never be able to run and play with you like these other dogs would." With that the little boy reached down, rolled up one leg of his trousers and revealed a steel brace running down both sides of his leg attaching itself to a specially made shoe. Looking back up at the owner, he said, "You see sir, I don't run too well myself, and he will need someone who understands."

(A) "I want that one
(B) "What is that?
(C) "That pup is so ugly
(D) "Is that puppy injured?
(E) "I like the pups which came earlier

48. A selfish fox once invited a stork to dinner at his home in a hollow tree. On arrival at the fox's home, the stork was served soup in a shallow bowl. The fox licked up all his soup very quickly. However, the stork could not have any of it as the bowl was too shallow for her long beak. The poor stork just smiled politely and stayed hungry. The stork then invited the fox over to his home for dinner. The next day, when the fox arrived at the stork's home, he saw that they were also having soup for dinner. This time the soup was served in tall jugs. ..... This time it was his turn to go hungry.

(A) The stork drank the soup easily but the fox could not reach inside the tall jug
(B) The fox overturned the tall jug and had his share of the soup
(C) The stork politely poured all of the fox's soup into another shallow bowl for the fox to drink
(D) The fox could easily reach into the tall jug
(E) The fox felt guilty about the way he had treated the stork

49. A man punished his three year old daughter for wasting a roll of gold wrapping paper. Money was tight and he became infuriated when the child tried to decorate a box to put under the Christmas tree. Nevertheless, the little girl brought the gift to her father the next morning and said, "This is for you, Daddy."

The man was embarrassed by his earlier over reaction ..... He yelled at her, stating, "Don't you know, when you give someone a present, there is supposed to be something inside!" The little girl looked up at him with tears in her eyes and cried, "Oh, Daddy, it's not empty at all. I blew kisses into the box. They're all for you, Daddy." The father was and put his arms around his little girl, and he begged for her forgiveness.

(A) But was too egoistic to actually apologize to his little girl
(B) And opened the box to find a very lovely gift inside
(C) And wanted to make it upto her by praising the gift he had received
(D) And decided to apologize to her
(E) But his anger flared again when he found out the box was empty

50. One day long ago, some sailors set out to sea in their sailing ship. One of them brought his pet monkey along for the long journey. ..... Everyone fell into the sea, and the monkey was sure that he would drown. Suddenly a dolphin appeared and picked him up. They soon reached the island and the monkey came down from the dolphin's back. The monkey thanked the dolphin for saving his life.

(A) The monkey entertained everyone on the ship with his antics
(B) The ship was very sturdy and could withstand strong gusts of wind

(C) When they were far out at sea, a terrible storm overturned their ship

(D) The ship reached the island

(E) The monkey rocked the ship and overturned it

Answers with Explanations

1. (A) 2. (B) 3. (A) 4. (B) 5. (B)
6. (A)
7. (A) Centrifugal is a force acting radially outwards from the centre.
8. (C) 9. (A) 10. (B) 11. (D) 12. (B)
13. (B) 14. (D) 15. (B) 16. (C) 17. (D)
18. (A) 19. (A) 20. (A) 21. (B) 22. (D)
23. (D) 24. (B) 25. (B) 26. (C) 27. (C)
28. (D) 29. (C) 30. (D) 31. (E) 32. (D)
33. (A) 34. (E) 35. (B) 36. (B) 37. (A)
38. (B) 39. (C) 40. (A) 41. (D) 42. (B)
43. (A) 44. (B) 45. (E) 46. (C) 47. (A)
48. (A) 49. (E) 50. (C)

Part—III
Quantitative Aptitude

1. Probability of getting a multiple of 2 on one dice and a multiple of 3 on the other dice, when both dice are thrown simultaneously is—

(A) $\frac{1}{6}$ (B) $\frac{5}{12}$

(C) $\frac{11}{36}$ (D) $\frac{5}{36}$

2. The area of a rectangular field is 15 times the sum of its length and breadth. If the length of that field is 40 metre, what is the breadth of that field ?

(A) 24 metre (B) 25 metre

(C) 28 metre (D) 32 metre

3. Find the measure of angle, if six times its complement is 12° less than twice its supplement—

(A) 48° (B) 36°

(C) 12° (D) 45°

4. The decimal representation of a rational number is—

(A) Always terminating

(B) Either terminating or repeating

(C) Either terminating or non repeating

(D) Neither terminating nor repeating

5. Find the volume and surface area of a sphere of radius 21 cm respectively—

(A) 38808 cm^2 and 5544 cm^2

(B) 38088 cm^2 and 5544 cm^2

(C) 38080 cm^2 and 5454 cm^2

(D) 38818 cm^2 and 4455 cm^2

6. One acute angle of a right angled triangle is double the other. If the length of its hypotenuse is 10 cm, then its area is—

(A) $\frac{75}{2}$ cm^2 (B) 25 cm^2

(C) $\frac{25}{2}\sqrt{3}$ cm^2 (D) None of these

7. The average marks obtained by 20 students is 45. The average of first ten is 50 and of last 9 is 40. What are the marks obtained by the 11th student ?

(A) 38 (B) 0

(C) 40 (D) 45

8. If the side of a cube is decreased by 10%, the percentage decrease in the volume of the cube is—

(A) 72.9% (B) 10%

(C) 19% (D) 27.1%

9. How much is the consumption wattage of a TV which when used 2 hr. a day for 30 days in a month, alongwith household gadgets consuming 5 units a day, aggregates a monthly consumption of 159 electrical units ?

(1 unit is 1000 watt)

(A) 100 watt (B) 200 watt

(C) 150 watt (D) 25 watt

10. A compact disc player when sold for ₹ 13,600 incurred a loss of 15 per cent. At what price should it have been sold to make a profit of 35 per cent on the cost ?

(A) ₹ 21,600 (B) ₹ 20,400

(C) ₹ 19,600 (D) None of these

11. A bus left with some definite number of passengers. At the first stop, half the passengers

left the bus and 35 boarded the bus. At the second stop $\frac{1}{5}$th of the passengers left and 40 boarded the bus. Then, the bus moved with 80 passenger towards its destination without stopping anywhere. How many passengers were there originally ?

(A) 40 (B) 30
(C) 50 (D) 60

12. When three coins are tossed together, the probability that all coins have the same face is—

(A) $\frac{1}{4}$ (B) $\frac{1}{6}$
(C) $\frac{1}{3}$ (D) None of these

13. Puneeta borrowed from Reena certain sum for two years at simple interest. Puneeta lent this sum to Venu at the same rate for two years compound interest. At the end of two years she received ₹ 110 as compound interest but paid ₹ 100 as simple interest. Find the sum and rate of interest—

(A) ₹ 250, rate 10% per annum
(B) ₹ 250, rate 20% per annum
(C) ₹ 250, rate 25% per annum
(D) None of these

14. 2000 soldiers in a fort had enough food for 20 days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred ?

(A) 400 (B) 450
(C) 525 (D) 500

15. The HCF and LCM of two numbers are 13 and 1989 respectively. If one of the numbers is 117, determine the other—

(A) 121 (B) 131
(C) 221 (D) 231

16. The difference between the length and breadth of a rectangle is 23 m. If its perimeter is 206 m, then its area is—

(A) 2520 m^2 (B) 2480 m^2
(C) 2420 m^2 (D) None of these

17. Salaries of Akash, Babloo and Chintu are in the ratio of 2 : 3 : 5. If their salaries were increased by 15%, 10% and 20% respectively, what will be the new ratio of their salaries—

(A) 3 : 3 : 10 (B) 23 : 33 : 60
(C) 20 : 22 : 40 (D) None of these

18. If a runner takes as much time in running 20 metre as the car takes in covering 50 metre, the distance covered by the runner during the time the car covers 1 km is—

(A) 400 metre (B) 40 metre
(C) 440 metre (D) None of these

19. If a right circular cone of vertical height 24 cm has a volume of 1232 cm^3, then the area of its curved surfaces—

(A) 550 cm (B) 625 cm
(C) 675 cm (D) None of these

20. For celebration of his birthday Ram goes to purchase sweets. He needs to buy a minimum of 300 pieces of rasgulla and 150 pieces of cream roll. Only pre-packed packets are available in the shop for these two items. These are economy pack and premium pack. Economy pack has 4 rasgulla and 1 cream roll costing ₹ 25 per pack and premium pack had 10 rasgulla and 7 cream roll costing ₹ 75 per packet. If he has to meet his requirement with the premium and economy packs, what is the minimum expenditure he has to incur ?

(A) ₹ 1575 (B) ₹ 2100
(C) ₹ 2425 (D) ₹ 2975

21. A Shopowner gives a discount of 10% on the marked price of a radio, but in the bargain makes a profit of 10%. If the marked price is ₹ 330, the cost price is rupees—

(A) ₹ 297 (B) ₹ 300
(C) ₹ 315 (D) ₹ 270

22. The sum of three numbers is 57 and the ratio of 1st to 2nd is 3 : 7 and 2nd to 3rd is 7 : 9. The second number is—

(A) 21 (B) 27
(C) 18 (D) 14

23. $\frac{189}{\sqrt{?}} = 1{\cdot}89$—

(A) 100 (B) 1000
(C) 10000 (D) 100000

24. $0.12 \times 12 \times 0.012 = ?$

(A) 0.01688 (B) 0.1728
(C) 1.728 (D) 0.01728

25. The difference between $\frac{3}{4}$ of 64 and $\frac{2}{3}$ of 48 is equal to—
(A) 24 (B) 20
(C) 32 (D) 16

26. 0.5 – 0.0036 = ?
(A) 0.4964 (B) 0.4864
(C) 0.4854 (D) 0.4954

27. What per cent of 70 is $46\frac{1}{5}$?
(A) 63 (B) 65
(C) 66 (D) 64

28. The sales tax on the motorcycle is 8%. If the marked price of the motorcycle is ₹ 36000, the selling price including sales tax is—
(A) ₹ 38800 (B) ₹ 38880
(C) ₹ 37880 (D) ₹ 39880

29. The sum of angles of a rhombus is—
(A) 360° (B) 180°
(C) 156° (D) 356°

30. The distance between stations A and B is 1692 km. A train starts from A on Thursday at 8.00 PM and reaches B on Saturday at 8.00 AM. The average speed of the train is—
(A) 47 kmph (B) 37 kmph
(C) 67 kmph (D) 57 kmph

31. The ratio of 250 ml to 2 liters is—
(A) 1 : 3 (B) 1 : 6
(C) 1 : 8 (D) 1 : 9

32. Angle described a minute hand of a wall clock from 8.00 AM to 8.45 AM will be—
(A) 180° (B) 210°
(C) 120° (D) 270°

33. 15 boys earn ₹ 900 in 5 days. The earning of 20 boys in 7 days will be—
(A) ₹ 1680 (B) ₹ 1600
(C) ₹ 1640 (D) ₹ 1660

34. The value of $5^2 + 12^\circ \times 11^\circ$ is—
(A) 9 (B) 26
(C) 11 (D) 0

35. The numerator of a fraction is 4 less than the denominator. If 1 is added to both denominator and numerator, the fraction becomes $\frac{1}{2}$. The fraction is—
(A) $\frac{13}{7}$ (B) $\frac{3}{7}$
(C) $\frac{7}{11}$ (D) $\frac{7}{3}$

36. If eggs are bought at 10 for ₹ 8 and sold at 4 for ₹ 5, the business results in—
(A) 50% loss (B) $56\frac{1}{4}$% gain
(C) 51% gain (D) $56\frac{1}{4}$% loss

37. 125 metre is x% of 750 metre. The value of x is—
(A) 26·66% (B) 16·33%
(C) 16·66% (D) 66·66%

38. A man sold an article for ₹ 560 and gained 12%, the cost price of the article was—
(A) ₹ 450 (B) ₹ 550
(C) ₹ 400 (D) ₹ 500

39. The number which is not a perfect square is—
(A) 625 (B) 576
(C) 451 (D) 361

40. The Arithmetic Mean of 13 observations is 14. If the Mean of 1st seven observations is 12 and that of last seven observations is 16, the 7th observation is—
(A) 12 (B) 13
(C) 24 (D) 14

41. A's salary is 50% more them B's. How much per cent is B's salary less than A's ?
(A) $33\frac{1}{4}$% (B) $33\frac{1}{3}$%
(C) $33\frac{1}{2}$% (D) 33%

42. When a number is divided by 893, the remainder is 193. What will be the remainder when it is divided by 47 ?
(A) 19 (B) 5
(C) 33 (D) None of these

43. A fruit seller buys lemons at 2 for a rupee and sells them at 5 for three rupees. His gain per cent is—
(A) 10% (B) 15%
(C) 20% (D) 25%

44. If $x : y = 3 : 4$ then, $(7x + 3y) : (7x - 3y)$ is equal to—
(A) 5 : 2 (B) 4 : 3
(C) 11 : 3 (D) None of these

45. A : B = 5 : 7
C : D = 2A : 3B
then AC : BD is—
(A) 20 : 38 (B) 50 : 147
(C) 10 : 21 (D) None of these

46. If A : B = 2 : 3, B : C = 4 : 5 C : D = 6 : 7, then A : B : C : D is—
(A) 18 : 24 : 30 : 35
(B) 16 : 24 : 30 : 35
(C) 16 : 22 : 30 : 35
(D) None of these

47. The three numbers are in ratio of $\frac{1}{2} : \frac{2}{3} : \frac{3}{4}$. The difference between the greatest and smallest numbers is 36. Find the numbers—
(A) 72, 84, 108 (B) 60, 72, 96
(C) 72, 96, 108 (D) None of these

48. The average marks obtained by 15 students including x are 70 and the average marks obtained by 14 students excluding x is 68. What is the marks obtained by x—
(A) 78 (B) 98
(C) 88 (D) None of these

49. Number of diagonals in a 30 sided convex polygon will be—
(A) 405 (B) 955
(C) 818 (D) 378

50. Two cars start from place A & B. 100 km apart, towards each other. Both cars start simultaneously. A bird sitting on one car starts at the same time towards the other car, and as soon as it reaches the second car, it flies back to the first car and it continues in this manner flying backwards and forwards from one car to the other, until the cars meet. Both cars travel at a speed on 50 kmph and the bird flies at 100 kmph. Total distance covered by the bird will be—
(A) 50 km (B) 100 km
(C) 200 km (D) None of these

Answers with Explanations

1. (A) Total favourable outcomes :
(2, 3) (2, 6) (4, 3) (4, 6) (6, 3) (6, 6) = 6
Total possible outcomes
$= 6 \times 6 = 36$
$\text{Probability} = \frac{6}{36} = \frac{1}{6}$

2. (A) $l \times b = 15(l + b)$
$l = 40$
$40 \times b = 15(40 + b)$
$40b = 600 + 15b$
$25b = 600$
$b = 24$ m

3. (A) As per question,
$6(90° - x) = 2(180° - x) - 12°$
$540° - 6x = 360° - 2x - 12°$
$4x = 192°$
$x = \frac{192°}{4}$
$= 48°$

4. (B)

5. (A) $V = \frac{4}{3}\pi r^3$
$= \frac{4}{3} \times \frac{22}{7} \times 21 \times 21 \times 21$
$= 88 \times 441$
$= 38808 \text{ cm}^3$
S. A. $= 4\pi r^2$
$= 4 \times \frac{22}{7} \times 21 \times 21$
$= 88 \times 63$
$= 5544 \text{ cm}^2$

6. (D) Ratio of sides = Ratio of angles
$= 2 : 1$
Let sides be $2x$ and x
By Pythagorean theorem,
$(2x)^2 + x^2 = 10^2$
$4x^2 + x^2 = 100$
$5x^2 = 100$
$x = \sqrt{20}$
$2x = 2\sqrt{20}$
$\text{Area} = \frac{1}{2} \times \sqrt{20} \times 2 \times \sqrt{20}$
$= 20 \text{ cm}^2$

7. (C) Let marks obtained by 11th student = x
Average of 20 students

$$= \frac{10 \times 50 + x + 9 \times 40}{20}$$

$$45 = \frac{860 + x}{20}$$

$$x = 45 \times 20 - 860$$

$$= 40$$

8. (D) Let side be 10 cm
then $V = 10^3 = 1000\ cm^3$
when side decreased by 10%

$$\text{Side} = 9\ cm$$

$$V = 9^3 = 729$$

% decrease in volume.

$$= \frac{(1000 - 729)}{1000} \times 100$$

$$= 27{\cdot}1\%$$

9. (C) Let consumption on TV = x watt/hr, then

$$30 \times 2 \times x + 5 \times 30 \times 1000$$

$$= 159 \times 1000$$

$$60x + 150{,}000 = 159000$$

$$60x = 9000$$

$$x = \frac{9000}{60}$$

$$= 150$$

10. (A) $(100 - 15)\% = 85\%$

$$85\% = 13{,}600$$

$$(100 + 35)\% = 135\%$$

$$135\% = \frac{13{,}600}{85} \times 135$$

$$= 21{,}600$$

11. (B) Let no. of passengers = x

$$\text{At 1st stop} = \frac{x}{2} + 35$$

$$\text{At 2nd stop} = \frac{4}{5}\left(\frac{x}{2} + 35\right) + 40$$

$$80 = \frac{2x}{5} + 28 + 40$$

$$\frac{2x}{5} = 40 - 28$$

$$\Rightarrow \quad x = 30$$

12. (B) $\frac{\text{No. of favourable outcomes}}{\text{Total possible outcomes}} = \frac{1}{6}$

13. (B) S.I. for 2 years = 100

$$\text{S.I. for 1 year} = \frac{100}{2} = 50$$

$$\text{C.I.} - \text{S.I.} = 110 - 100$$

$$= 10$$

$$\text{Rate} = \frac{10}{50} \times 100$$

$$= 20\%$$

$$P = \frac{\text{S.I.} \times 100}{R \times T}$$

$$= \frac{50 \times 100}{20 \times 1}$$

$$= 250$$

14. (A) Let x soldiers be transferred then

$$2000 \times 20 = (2000 - x) \times 25$$

$$\frac{2000 \times 20}{25} = 2000 - x$$

$$x = 2000 - 1600$$

$$= 400$$

15. (C) $\text{Second no.} = \frac{\text{LCM} \times \text{HCF}}{\text{1st No.}}$

$$= \frac{1989 \times 13}{117}$$

$$= 221$$

16. (A) $l - b = 23$ ...(1)

$$2(l + b) = 206$$

$$l + b = 103 \quad ...(2)$$

Adding (1) and (2)

$$2l = 126$$

$$l = 63$$

Putting into (2)

$$63 + b = 103$$

$$b = 40$$

$$\text{Area} = l \times b$$

$$= 63 \times 40$$

$$= 2520\ m^2$$

17. (B)

$$\text{Current ratio} = 2 : 3 : 5$$

$$\text{New ratio} = \frac{2 \times 115}{100} : \frac{3 \times 110}{100} : \frac{5 \times 120}{100}$$

$$= 230 : 330 : 600$$

$$= 23 : 33 : 60$$

18. (A) Runner : Car = 20 : 50

$$= 2 : 5$$

When car covers 1 km *i.e.*, 1000 m

$$\text{the runner will run} = \frac{1000}{5} \times 2$$

$$= 400\ m$$

19. (A) $\frac{1}{3}\pi r^2 h = 1232$

$\frac{1}{3} \times \frac{22}{7} \times r^2 \times 24 = 1232$

$r^2 = \frac{1232 \times 3 \times 2}{22 \times 24}$

$r^2 = 49$

$\Rightarrow \quad r = 7$ cm

Again, $l^2 = r^2 + h^2$

$l^2 = 7^2 + 24^2$

$= 49 + 576$

$l^2 = 625$

$l = 25$ cm

Curved surface area $= \pi r l$

$= \frac{22}{7} \times 7 \times 25$

$= 550$ cm^2

20. (B)

21. (D) 110% of C.P. = 90% of M.P.

$\frac{110}{100} \times$ C.P. $= \frac{90}{100} \times 330$

C.P. $= \frac{90 \times 330}{110}$

$= 270$

22. (A) Ratio $= 3 : 7 : 9$

2nd No. $= \frac{7}{3+7+9} \times 57$

$= \frac{7}{19} \times 57$

$= 21$

23. (C) $\frac{189}{\sqrt{?}} = 1{\cdot}89$

$\sqrt{?} = \frac{1{\cdot}89}{189}$

$= 100$

$\therefore \quad ? = 10000$

24. (D) $0{\cdot}12 \times 12 \times 0{\cdot}012 = 0{\cdot}01728$

25. (D) $64 \times \frac{3}{4} - 40 \times \frac{2}{3} = 48 - 32 = 16$

26. (A) $0{\cdot}5000 - 0{\cdot}0036 = 0{\cdot}4964$

27. (C) $16\frac{1}{5} = \frac{231}{5}$

$\frac{231}{5 \times 70} \times 100 = 66$

28. (B) $100 + 8 = 108\%$

108% of 36000 $= \frac{108}{100} \times 36000$

$= 38880$

29. (A) Sum of angles of a Rhombus (quad.) = 360°

30. (A) Distance = 1692 km

Time taken = 36 hrs

Speed $= \frac{1692}{36}$

$= 47$ km/hr

31. (C) $2l = 2000$ ml

Ratio $= \frac{250}{2000} = 1 : 8$

32. (D) 1 minute = 6°

45 minutes $= 45 \times 6$

$= 270°$

33. (A) 15 boys × 5 days = 900

1 boy × 1 day $= \frac{900}{15 \times 5}$

20 boys × 7 days $= \frac{900}{15 \times 5} \times 20 \times 7$

= ₹ 1680

34. (B) $5^2 + 12° \times 11° = 25 + 1 \times 1$

$= 26$

35. (B) Let fraction $= \frac{x-4}{x}$

According to question,

$\frac{x-4+1}{x+1} = \frac{1}{2}$

$\frac{x-3}{x+1} = \frac{1}{2}$

$2x - 6 = x + 1$

$x = 7$

Fraction $= \frac{7-4}{7} = \frac{3}{7}$

36. (B) C.P. $= \frac{8}{10}$

S.P. $= \frac{5}{4}$

Gain % $= \frac{\left(\frac{5}{4} - \frac{8}{10}\right)}{8/10} \times 100$

$= \frac{9}{20} \times \frac{10}{8} \times 100$

$$= \frac{450}{8}$$

$$= 56\frac{1}{4}\%$$

37. (C) $750 \times \frac{x}{100} = 125$

$$x = \frac{125 \times 100}{750}$$

$$= \frac{50}{3} = 16{\cdot}66\%$$

38. (D) $(100 + 12)\% = 112\%$

112% of C.P. $= 560$

$$\frac{112}{100} \times \text{C.P.} = 560$$

$$\text{C.P.} = \frac{560 \times 100}{112}$$

$$= 500$$

39. (C) $625 - 25^2$, $576 - 24^2$, $361 - 19^2$

451 is not a perfect square

40. (D) 7th observation

$$= (7 \times 12 + 7 \times 16) - 13 \times 14$$
$$= 14(6 + 8) - 13 \times 14$$
$$= 14 \times 14 - 13 \times 14$$
$$= 14(14 - 13)$$
$$= 14 \times 1 = 14$$

41. (B) Required percentage

$$= \frac{50}{150} \times 100$$

$$= 33\frac{1}{3}\%$$

42. (B)

893 is completely divisible by 47

Now,

$$\frac{193}{47} \begin{cases} 4\ (Q) \\ 5\ (R) \end{cases}$$

Remainder = 5

43. (C) C. P. per lemon $= \frac{1}{2}$

S. P. per lemon $= \frac{3}{5}$

$$\text{Gain \%} = \frac{\left(\frac{3}{5} - \frac{1}{2}\right)}{1/2} \times 100$$

$$= \frac{1}{10} \times \frac{2}{1} \times 100$$

$$= 20\%$$

44. (C) $x : y = 3 : 4$

$(7x + 3y) : (7x - 3y)$

$(7 \times 3 + 3 \times 4) : (7 \times 3 - 3 \times 4)$

$21 + 12 : 21 - 12$

$33 : 9 = 11 : 3$

45. (B) $A : B = 5 : 7$

$C : D = 2A : 3B$

$AC : BD = 5 \times 2 \times 5 : 7 \times 3 \times 7$

$= 50 : 147$

46. (B) $A : B = (2 : 3) \times 4 = 8 : 12$

$B : C = (4 : 5) \times 3 = 12 : 15$

$A : B : C = (8 : 12 : 15) \times 6$

$= 48 : 72 : 90$

$C : D = (6 : 7) \times 15$

$= 90 : 105$

$A : B : C : D = 48 : 72 : 90 : 105$

$= 16 : 24 : 30 : 35$

47. (C) $\frac{1}{2} : \frac{2}{3} : \frac{3}{4}$

$6 : 8 : 9$

$9 - 6 = 3$

3 parts $= 36$

1 part $= \frac{36}{3} = 12$

Numbers : 12×6, 12×8, 12×9

$= 72, 96, 108$

48. (B) Marks obtained by x

$$= 15 \times 70 - 14 \times 68$$
$$= 14(15 \times 5 - 68)$$
$$= 14(75 - 68)$$
$$= 14 \times 7 = 98$$

49. (A) No. of diagonals $= \frac{n(n-3)}{2}$

(where $n \rightarrow$ number of sides)

$$= \frac{30(30 - 3)}{2}$$
$$= 15 \times 27$$
$$= 405$$

50. (B) Time taken by cars in covering the distance

$$= \frac{100}{50 + 50}$$
$$= 1 \text{ hr}$$

Distance covered by the bird in 1 hr

$$= 1 \times 100$$
$$= 100 \text{ km}$$

Part—IV
General Awareness

1. Who estimated the National Income for the first time in India ?
   (A) Mahalanobis (B) Dadabhai Naoroji
   (C) V. K. R. V. Rao (D) Sardar Patel

2. Economic development of a country depends on—
   (A) Natural resources
   (B) Capital formation
   (C) Size of the market
   (D) All of the above

3. National Income is generated from—
   (A) Any money-making activity
   (B) Any laborious activity
   (C) Any profit-making activity
   (D) Any productive activity

4. Money supply is governed by the—
   (A) Planning Commission
   (B) Finance Commission
   (C) Reserve Bank of India
   (D) Commercial Banks

5. The headquarters of WTO is at—
   (A) New York (B) Doha
   (C) Uruguay (D) Geneva

6. Which state is called the 'Rice Bowl' of India ?
   (A) Andhra Pradesh (B) Tamil Nadu
   (C) Kerala (D) Karnataka

7. The highest waterfall of India is—
   (A) Shimsha falls (B) Hogenakkal falls
   (C) Courtallam falls (D) Jog falls

8. Which state is rich in jute ?
   (A) West Bengal (B) Tamil Nadu
   (C) Kerala (D) Odisha

9. Which of the following countries are connected by the Palk Strait ?
   (A) India and Sri Lanka
   (B) North Korea and South Korea
   (C) Pakistan and China
   (D) Britain and France

10. Match the following—

(a) Hazaribagh			1. Coal	
(b) Neyveli			2. Iron	
(c) Jharia			3. Lignite	
(d) Rourkela			4. Mica	
	(a)	(b)	(c)	(d)
(A)	3	4	1	2
(B)	3	4	2	1
(C)	1	2	3	4
(D)	4	3	2	1

11. What is the minimum percentage of votes a political party must get to acquire the status of a registered party ?
   (A) 1% (B) 2%
   (C) 3% (D) 4%

12. The term of office of the Comptroller and Auditor General of India is—
   (A) 3 years (B) 4 years
   (C) 5 years (D) 6 years

13. Who was the first Chief Election Commissioner of India ?
   (A) G. V. Mavlankar
   (B) T. Swaminathan
   (C) K. V. K. Sundaram
   (D) Sukumar Sen

14. What is the retirement age for a Supreme Court Judge ?
   (A) 62 years (B) 65 years
   (C) 68 years (D) 70 years

15. Name the 'Political Guru' of Mahatma Gandhi.
   (A) Gopalakrishna Gokhale
   (B) Bal Gangadhar Tilak
   (C) Aurobindo Ghosh
   (D) Lala Lajpat Rai

16. Arrange the following Magadhan dynasties in chronological order—
   I. Nandas II. Sisunagas
   III. Mauryas IV. Haryankas
   (A) IV, II, III and I (B) II, I, IV and III
   (C) IV, II, I and III (D) III, I, IV and II

17. What is meant by a 'pir' in the Sufi tradition ?
   (A) The Supreme God

(B) The Guru of the Sufis
(C) The greatest of all Sufi saints
(D) The orthodox teacher who contests the Sufi beliefs

18. Khalsa Panth was created by Guru Gobind Singh in which year ?
(A) 1599 (B) 1699
(C) 1707 (D) 1657

19. Who propounded the Panchsheel Principles ?
(A) Mahatma Gandhi
(B) Lord Buddha
(C) Pandit Jawahar Lal Nehru
(D) Swami Dayanand Saraswati

20. On April 12, 1944 Subhash Chandra Bose hoisted the INA Flag in a town. In which State/ Union Territory is that town now ?
(A) Andaman and Nicobar Islands
(B) Tripura
(C) Manipur
(D) Mizoram

21. Which one of the following is known as the 'irreplaceable property' in the cell ?
(A) Carbohydrate (B) Fat
(C) Protein (D) Nucleic acid

22. Water from soil enters into the root hairs owing to—
(A) Atmospheric pressure
(B) Capillary pressure
(C) Root pressure
(D) Osmotic pressure

23. Breeding and management of bees is known as—
(A) Sericulture (B) Silviculture
(C) Pisciculture (D) Apiculture

24. The vitamin necessary for coagulation of blood is—
(A) Vitamin B (B) Vitamin C
(C) Vitamin K (D) Vitamin E

25. The average life span of red blood corpuscles is about—
(A) 100 – 200 days (B) 100 – 120 days
(C) 160 – 180 days (D) 150 – 200 days

26. Dormancy period of animals during winter season is called—
(A) Aestivation (B) Regeneration
(C) Hibernation (D) Mutation

27. The angle in which a cricket ball should be hit to travel maximum horizontal distance is—
(A) 60° with horizontal
(B) 45° with horizontal
(C) 30° with horizontal
(D) 15° with horizontal

28. The minimum number of geostationary satellites needed for uninterrupted global coverage is—
(A) 3 (B) 4
(C) 2 (D) 1

29. The best conductor of electricity among the following is—
(A) Copper (B) Iron
(C) Aluminium (D) Silver

30. Flight Recorder is technically called—
(A) Dark box (B) Blind box
(C) Black box (D) Altitude meter

31. Which of the following is **not** a computer network ?
(A) Wide area network
(B) Local area network
(C) Personal network
(D) Metropolitan area network

32. When a group of computers is connected together in a small area without the help of telephone lines, it is called—
(A) Remote Communication Network (RCN)
(B) Local Area Network (LAN)
(C) Wide Area Network (WAN)
(D) Value Added Network (VAN)

33. Which one of the following elements is used in the manufacture of fertilizers ?
(A) Fluorine (B) Potassium
(C) Lead (D) Aluminium

34. Natural rubber is the polymer of—
(A) Isoprene (B) Styrene
(C) Butadiene (D) Ethylene

35. In addition to hydrogen, the other abundant element present on Sun's surface is—
(A) Helium (B) Neon
(C) Argon (D) Oxygen

36. Which of the following is the major constituent of LPG ?
(A) Methane (B) Ethane
(C) Propane (D) Butane

37. IUCN categorized major threatened species under—
(A) Seven classes (B) Five classes
(C) Six classes (D) Four classes

38. Minamata disease was caused by—
(A) Mercury (B) Lead
(C) Cadmium (D) Zinc

39. Ozone layer is present in—
(A) Troposphere (B) Ionosphere
(C) Stratosphere (D) Exosphere

40. The first atomic bomb was thrown over—
(A) Nagasaki (B) Hiroshima
(C) Tokyo (D) Hong Kong

41. Which of the following countries has entered into an agreement with India for the supply of Advanced Jet Trainer (HAWK) ?
(A) Russia (B) U.S.A.
(C) England (D) France

42. The name of the 'Cargo Ship' which sank off Mumbai coast recently, causing oil spill in the Arabian Sea, was—
(A) Sagar Jyoti (B) Venus
(C) MSC Chitra (D) Golden Eagle

43. Yuan is the currency of—
(A) Japan (B) China
(C) Italy (D) Yugoslavia

44. The National Integration Council (NIC) is chaired by the—
(A) Prime Minister (B) Finance Minister
(C) Home Minister (D) President of India

45. The 16-year-old school-boy, Arjun Vajpai who became the youngest Indian to successfully climb the world's highest peak, Mount Everest, on May 22, 2010, is from which state ?
(A) Uttar Pradesh
(B) Madhya Pradesh
(C) National Capital Territory of Delhi
(D) Uttarakhand

46. Which one of the following is an 'Air-to-Air' missile ?
(A) Prithvi (B) Agni
(C) Akash (D) Astra

47. Santosh Trophy is associated with—
(A) Hockey (B) Football
(C) Basketball (D) Badminton

48. Kathakali classical dance originated in—
(A) Kerala (B) Karnataka
(C) Rajasthan (D) Tamil Nadu

49. The first effective vaccine against polio was prepared by—
(A) J. H. Gibbon (B) Jonas E. Salk
(C) Robert Edwards (D) James Simpson

50. Who discovered sea route to India via the 'Cape of Good Hope' ?
(A) Vasco da Gama
(B) Amundsen
(C) Christopher Columbus
(D) John Cabot

Answers

1. (B)	2. (D)	3. (D)	4. (C)	5. (D)
6. (A)	7. (D)	8. (A)	9. (A)	10. (B)
11. (D)	12. (D)	13. (D)	14. (B)	15. (A)
16. (C)	17. (B)	18. (B)	19. (C)	20. (C)
21. (A)	22. (D)	23. (D)	24. (C)	25. (B)
26. (C)	27. (B)	28. (A)	29. (D)	30. (C)
31. (C)	32. (B)	33. (B)	34. (A)	35. (A)
36. (C)	37. (A)	38. (A)	39. (C)	40. (B)
41. (C)	42. (C)	43. (B)	44. (A)	45. (C)
46. (D)	47. (B)	48. (A)	49. (B)	50. (C)