SPARDHA 2017

ALMA FIESTA

Indian Institute of Technology, Bhubaneswar

NAME: ……….

CLASS: ………………………….   **Contact Info:** ………………………………………………..

SCHOOL NAME: ……………………………………………………………………………………………………….

Email – ID (if available): ……………………………………………………………………………………….

INSTRUCTIONS

- Write your name, class and school name in the space provided above.
- Use only **blue ball-point pen** to choose answers.
- Use **Tick (✔)** to select your answer. Do NOT circle, highlight, shade, etc. Answers chosen with anything except **(✔)** will not be considered for mark evaluation.
- **2 marks will be awarded** for a correct answer and **1 will be deducted** for an incorrect answer.
- No marks will be awarded for questions left unanswered.
- Rough work should **strictly** be done on the last page provided. Marks will be deducted for scribbling rough work on papers with questions on it.
- Calculators and other electronic gadgets are **strictly not allowed** inside the examination hall. If found with any such device, the candidate will be **immediately disqualified.**
- Candidates are advised to bring pencil, eraser, pen and school ID card (if available).

ALL THE BEST

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Directions (Q. 1 to 2): Read the following information carefully and answer the given questions.

L$M means L is son of M, L*M means L is wife of M, L#M means L is mother of M and L@M means L is sister of M.

1. What does A$B*C mean?
(A) C is husband of A   (B) C is father of A
(C) B is father of A   (D) C is brother of A

2. What does A@B#C mean?
(A) C is nephew of A   (B) C is son of B
(C) A is Aunt of C   (D) B is father of C

Directions (Q. 3 to 5): On the basis of the information given below, answer the given questions:
Eight friends Shobhit, Abhishek, Shaurya, Abhinav, Shubham, Saurav, Animesh and Kartik are sitting in a circle facing the centre. Abhishek is between Animesh and Abhinav. Kartik is third to the left of Abhishek and Second to the right of Shobhit. Shaurya is sitting between Shobhit and Animesh and Abhishek and Shubham are not sitting opposite to each other.

3. Who is third to the left of Abhinav?
(A) Shaurya   (B) Animesh
(C) Saurav   (D) Kartik

4. Which of the following statement is not correct?
(A) Shaurya is third to the right of Abhinav
(B) Shobhit is sitting between Shaurya and Saurav
(C) Abhinav and Shobhit are sitting opposite to each other
(D) Shubham is sitting between Abhishek and Shobhit.

5. Who is second to the left of Kartik?
(A) Shobhit   (B) Animesh
(C) Shubham   (D) Abhishek

6. In a row of girls, Seema is eighth from the left and Reema is seventeenth from the right. If they inter-change their places, Seema becomes fourteenth from the left. How many girls are there in that row?
(A) 30   (B) 25
(C) 29   (D) 27

7. There are two clocks on a wall. One clock gains 2 minutes in one hour while another clock loses 4 minutes in one hour. Both clocks show correct time at 10 am. Find the time difference of the two clocks at 8 pm next day?
(A) 2 hours 16 minutes   (B) 3 hours 44 minutes.
(C) 3 hours 24 minutes   (D) 2 hours 28 minutes

8. A earns more than B and less than C. D earns more than A and C. E earns more than only B. Who earns the least among the five of them?
(A) E   (B) D
(C) B   (D) C

9. A's house is located to the north of B's house. C's house is located to the west of B's house. M's house is located to the south-west of B's house and to the south-east of C's house while D's house is located to the north-west of C's house. Then in which direction M's house is located with respect to D's house?
(A) North-West   (B) South-West
(C) South-East   (D) North-East

Directions (Q. 10 to 12): Study the following information carefully and answer these questions:
P, Q, R, S, T, U and V are students of a school and have different favourite subjects viz Mathematics, History, Biology, Chemistry, English, Physics and Economics but not necessarily in the same order. Each one of them also has a liking for different colours viz Black, Red, Blue, Green, Purple, Yellow and Pink not necessarily in the same order. Q likes Mathematics and Blue colour. T's favourite subject is Physics but his favourite colour is not Purple or Black. The one whose favourite subject is English likes Pink colour. P's favourite subject is Chemistry and he likes Yellow colour. U likes Red colour but his favourite subject is neither Biology nor Economics. The one whose favourite subject is Economics does not like Black colour. R likes Purple colour and V's favourite subject is English.

10. Which of the following is correct combination?
(A) V-English-Pink (B) R-Mathematics-Purple
(C) U-Chemistry-Black (D) S-Economics-Black

11. S's favourite subject is?
(A) History   (B) English
(C) Biology   (D) Economics

12. Who likes Green colour?
(A) T   (B) S
(C) U   (D) R

Directions: (Q. 13 to 17): In each of the following questions, four groups of three words each are given. Only one group in each does not share the underlying principle that combines the words. Find that group:

13. (A) Arm, Hair, Legs   (B) Car, Tyre, Steering
    (C) Tree, Leaf, Trunk   (D) Universe, Solar System, Galaxy

14. (A) Orange, Pineapple, Sweet lime (Mausmbi)   (B) Mango, Plum, Peach
    (C) Banana, Guava, Grapes   (D) Melon, Watermelon, Cucumber

15. (A) India, China, Japan   (B) Canada, Mexico, Australia
    (C) South Africa, Kenya, Zimbabwe   (D) United kingdom, France, Spain

16. Race : Fatigue: : ...... : ......
(A) Fast : Hungry   (B) Fast : Energy
(C) Fast : Food   (D) Fast : Fatigue
.
17. Penology : Punishment : Seismology : ......
(A) Law   (B) Earthquake
(C) Liver   (D) Medicine

18. Sarita correctly remembers that her father's birthday is after 8 June but before 12_{th} June. Her brother correctly remembers that their father's birthday is after 10_{th} June but before 15_{th} June. On which day of June was definitely their father's birthday?
(A) 10_{th} (B) 11_{th}
(C) 12_{th} (D) 9th

Directions: (Q. 18 to 23): Choose the odd one out:

18. (A) Steel   (B) Copper
    (C) Bronze   (D) Brass

19. (A) Seismograph   (B) Earthquake
    (C) Cyclone   (D) Tsunami

20. (A) Bhopal   (B) Mumbai
    (C) Hyderabad   (D) Allahabad

21 Of the following two statements, both of which cannot be true, but both can be false. Which are these two statements?
I. All machines make noise
II. Some machines are noisy
III. No machine makes noise
IV. Some machines are not noisy
(A) I & II   (B) III & IV

(C) I & III   (D) II & IV

22. David gets on the elevator at the 11th floor of a building and rides up at the rate of 57 floors per minute. At the same time, Albert gets on an elevator at the 51st floor of the same building and rides down at the rate of 63 floors per minute. If they continue travelling at these rates, then at which floor will their paths cross?
(A) 19   (B)28

(C)30   (D) 37

23. Identify? : [(45, 55) (60, 61)-(A)], [(49, 32) (87, 82)-(D)], [(37, 12) (79, 65)-(?)]

(A) 2   (B) 3

(C) 5   (D) 6

24. Amit is now 6 times as old as his son. Four years from now, the sum of their ages will be 43 years. Determine Amit.s present age:
(A) 30 years   (B) 32 years
(C) 34 years   (D) 28 years

25. Aman starts walking in south and walks for 7 km, then turns left and walks for 2km, Then, once again turns left and walks for 12km, turns left one more time and walks for 2km. How much distance he has to cover to reach the starting point?
(A) 7km   (B) 12km
(C) 4km   (D) 5km

26. A is 3 times more efficient than B. Hence, he takes 60 days less in painting a room. In how many days, work will be completed, if A and B both work together?
(A) 30 days   (B) 45 days
(C) 22.5 days   (D) 17.5 days

Directions: (Q. 27 to 28): Complete the series using one of the alternatives.
27. Bulgaria, Ecuador, Germany, Norway, ...
(A) Russia   (B) India

(C) Afghanistan   (D) Canada

28. 2197, 2744, 3375, 4096, ...
(A) 4761   (B) 4232
(C) 4913   (D) 3291

29. Arrange the words in the correct order:
(A) Tissues   (B) Cells
(C) Organ System   (D) Body
(E) Organ
(A) B, A, C, E, D   (B) C, A, B, E, D
(C) A, E, C, D, B   (D) B, A, E, C, D

30. If the position of the letters in the word .GOVERNMENT. are re-arranged in such a way that the position of the 1st and 2nd letters are interchanged, similarly the position of the 3rd and 4th letters are interchanged and so on. Which of the following will be the 3rd from the right end after the rearrangement?
(A) M   (B) F
(C) V   (D) R

31. A girl facing north turns 90° in the anticlock direction and then turns 45° in the clockwise direction and then again turns 135° in the anticlockwise, Which directions in she facing now?
(A) South   (B) East
(C) North   (D) West

32. The ration of boys to girls in a school is 5 : 2. The number of boys is more by 450 than that of girls. How many students are there in that school?
(A) 650   (B) 1050
(C) 400   (D) 950

33. A train travels 92.4km/hr. How many metres will it travel in 10 minutes?
(A) 15400   (B) 1540
(C) 154   (D) 15.40

34. Given that : x + y . z + 100 = 350. If x = 2y and y = 2z, then z = ?
(A) 30   (B) 50
(C) 70   (D) 90

35. Srawn spends 20% of his monthly salary on food, 40% of the remaining on house rent and balance amount spends on other items of routine expense. What is his yearly salary if he spends Rs. 5760 per month on other items of routine expenses?
(A) Rs 1, 20, 000   (B) Rs 2, 44, 000
(C) Rs 1, 44, 000   (D) Rs 1, 54, 000

36. If the simple interest on a certain sum of money @ 4% for 5 years is Rs. 800, find the sum.
(A) Rs 4, 000   (B) Rs 9, 000
(C) Rs 12, 000   (D) None of the above

37. The weight of a sand bag is 40kg. In a hurry it was weighted as 40.8kg. The error percentage is:
(A) -2%   (B) 0.5%
(C) -0.5%   (D) 2%

38. The product of two positive numbers is 120 and the sum of their square is 289. The difference between them is:
(A) 7   (B) . 7
(C) 2   (D) 14

39. The smallest number which when reduced by 7 is divisible by 12, 16 and 18:
(A) 199   (B) 223
(C) 295   (D) 287

40. In a class of 250 students, 75.8% took French and 49.4% took Latin. How many students took both French and Latin?
(A) 189.0   (B) 123.0
(C) 63.0   (D) 90.0

Directions: (Q. 41 to 50): Questions asked on the Topic "Blood Donation".

41. Which of the following is second most abundant blood group?
(A)A+   (B)B+
(C)O+   (D)AB+

42. A person is allowed to donate blood when suffering from :
(A) Cholera   (B) Pnuemonia
(C) Goitre   (D) Malaria

43. What should be the age of a person who is donating blood?
(A)more than 17   (B)less than 17
(C)More than 70   (D)more than 15 but less than 17

44. When is Blood Donor Day?
(A)14th Nov   (B)24th Dec
(C)14th June   (D) 17th Mar

45. Which of the following metals is present in Haemoglobin?
(A) Iron   (B) Cobalt
(C) Manganese   (D) Aluminium

46. How often can a person donate blood?
(A)88 days   (B)100 days
(C)84 days   (D)96 days

47. Which of the following is second most abundant blood group?
(A)A+   (B)B+
(C)O+   (D)AB+

48. How many units of blood are in an average human's body.
(A)4-6 units   (B)6-8 units
(C)8-10 units   (D)10-12 units

49. Can a person taking medications like antibiotics donate blood?
(A) yes he can donate blood
(B)he should wait for sometime for his treatment to get over and then can donate blood
(C) he can never donate blood
(D) depends on his blood type

50. Who had invented the blood donation programme ?
(A)Charles Richard   (B) James Harrison
(C)Michael Joseph Jackson   (D)Michael Jordon

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