

001

## SPARDHA 2017

### ALMA FIESTA

9-10

### 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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1. If GO = 32, RAM = 49, then PANKAJ = ?

- (A) 119            (B) 129            (C) 109            (D) 91

2. Each letter of the alphabet from Z to A has been given a value from 1 to 26 serially (i.e., Z = 1, Y = 2, X = 3, .....A = 26). What is the total value of the word 'CONSEQUENCE'?

- (A) 137            (B) 154            (C) 176            (D) 196

3. Radha ranks seventh from the top and twenty-sixth from the bottom in a class. How many students are there in the class?

- (A) 31            (B) 32            (C) 33            (D) 34

4. In a group of cows and hens, the number of legs are 14 more than twice the number of heads. The number of cows is:

- (A) 5            (B) 7            (C) 10            (D) 12

5. Introducing a man, a woman said, "He is the only son of my mother's mother." How is the woman related to that man?

- (A) Mother            (B) Niece            (C) Aunt            (D) Sister

6. Ram starts walking towards south. After walking 15 m he turns towards north. After walking 20 m, he turns towards east and walks 10 m. He then turns towards south and walks 5 m. How far is he from his initial position?

- (A) 10 m            (B) 5 m            (C) 15 m            (D) 7 m

7. Amit said, "This girl is the wife of the grandson of my mother". How is Amit related to the girl?

- (A) Father            (B) Husband            (C) Father-in-law            (D) Grandfather

8. In a certain language, If SON = 33, AMIT = 65, then RADHA = ?

- (A) 113            (B) 123            (C) 103            (D) 129

9. One day Ram left office and cycled 10 km southwards, turned right and cycled 5 km then turned right and cycled 10 km and again turned left and cycled 10 km. How many kms will he have to cycle to reach his office straight?

- (A) 10 km            (B) 15 km            (C) 20 km            (D) 25 km

10. If from 2800 rupees A got  $\frac{2}{3}$  of B and B got  $\frac{1}{3}$  of C. What amount of money does C has?

- (A) 600            (B) 400            (C) 1200            (D) 1800

11. What are the number of possible triangles that can be made from 6 points out of which 3 are collinear?

- (A) 18            (B) 19            (C) 20            (D) 22

12. You are visiting your friend. When you walk in her room ,you find that there are 7 girls. Each of the seven girls has 7 bags ,in which there are 7adult cats each .Now, each of the adult cats has seven little cats along with them. Then find out the total number of legs in the room.

- (A)10988      (B)10990      (C)10900      (D)10992

**Directions (Q. 13 to 18):** Study the following information and answer the questions given below:

M, N, P, R, T, W, F and H are sitting around a circle facing the centre. P is third to the left of M and second to the right of T. N is second to the right of P. R is second to the right of W, who is second to the right of M. F is not an immediate neighbour of P.

13. Who is to the immediate right of P?

- (A) H      (B) F      (C) R      (D) Data inadequate

14. Who is to the immediate right of H?

- (A) R      (B) F      (C) M      (D) None of these

15. Who is to the immediate left of R?

- (A) P      (B) H      (C) T      (D) W

16. Who is third to the right of H?

- (A) T      (B) W      (C) R      (D) F

17. Who is second to the right of F?

- (A) M      (B) R      (C) T      (D) Data inadequate

18. In which of the following is the first person sitting in between the second and the third person?

- (A) NHM      (B) PHN      (C) TRP      (D) TWF

**Directions (Q.19 to 20):** Choose the odd one which is different from rest.

19. (A) 512      (B) 729      (C) 1728      (D) 3275

20. (A) LO      (B) GT      (C) KQ      (D) IR

21. (A) 529      (B) 676      (C) 729      (D) 814

22. (A) KP      (B) HS      (C) FW      (D) MN

**Directions (Q. 23 to 26):** Find the missing number.

23. 2, 9, 28, 65, \_\_\_\_\_

- (A) 121      (B) 195      (C) 126      (D) 103

24. 2, 6, 14, 26, \_\_\_\_\_, 62

- (A) 52      (B) 54      (C) 44      (D) 42

25. 4, 18, 48, 100, \_\_\_\_\_

- (A) 180            (B) 200            (C) 192            (D) 186

26. 0, 2, 24, 324, \_\_\_\_\_

- (A) 4620            (B) 5120            (C) 3072            (D) 5136

27. 2, 5, 10, 50, 500, \_\_\_\_\_

- (A) 5000            (B) 2500            (C) 50000            (D) 25000

28. 100, 144, 196, 256, \_\_\_\_\_

- (A) 324            (B) 400            (C) 289            (D) 484

29. 2, 3, 5, 10, 18, 33, \_\_\_\_\_

- (A) 63            (B) 61            (C) 70            (D) 66

30. Jan 1st 2014 was a Wednesday. Based on this how many Sundays must have occurred in 2014?

- (A) 51            (B) 52            (C) 53            (D) cannot decide based on given data.

**Directions (Q. 31 to 35):** Study the following information carefully and answer the questions given below: A, B, C, D, E, F, G and H are eight students of a school. They study in Standard VI, VII and VIII with not more than three in any standard. Each of them has a favourite subject from Physics, Geography, English, Marathi, Mathematics, Chemistry, Biology and Economics but not necessarily in the same order. D likes Chemistry and studies in standard VIII with only H. B does not study in standard VII. E and A study in the same standard but not with B. C and F study in the same standard. Those who study in standard VI do not like mathematics or Biology. F likes Physics. The one who studies in standard VIII likes English. C does not like Geography. A's favourite subject is Marathi and G does not like Biology.

31. Which subject does H like?

- (A) English            (B) Marathi            (C) Science            (D) Data inadequate

32. What is G's favourite subject?

- (A) Biology            (B) Physics            (C) Marathi            (D) Mathematics

33. What is C's favourite subject?

- (A) Economics            (B) Biology            (C) English            (D) Geography

34. Which of the following combinations of student □ standard □ Subject is correct?

- (A) C – VII – Economics            (B) D – VI – Chemistry            (C) G – VII – Physics            (D) H – VIII – English

35. Which of the following group of students study in VII standard?

- (A) EAF            (B) EGC            (C) EAG            (D) None of these

**Direction (Q. 36 to 38):** Read the passage given below and solve the questions based on it.

There is a cube in which one pair of opposite faces is painted red; another pair of opposite faces is painted blue and the third pair of opposite faces is painted pink. This cube is now cut into 216 smaller but identical cubes.

36. How many small cubes will be there with no red paint at all?

- (A) 121              (B) 144              (C) 169              (D) 100

37. How many small cubes will be there with at least two different colours on their faces?

- (A) 49              (B) 64              (C) 56              (D) 81

38. How many small cubes will be there without any face painted?

- (A) 64              (B) 49              (C) 36              (D) 25

**Directions (Q.39 to 40):** Study the information given below and answer the questions that follow:

Six lectures A, B, C, D, E and F are to be organized in a span of seven days from Sunday to Saturday, only one lecture on each day in accordance with the following:

- (i) A should not be organized on Thursday,
- (ii) C should be organized immediately after F.
- (iii) There should be a gap of two days between E and D.
- (iv) One day there will be no lecture (Friday is not that day), just before that day D will be organized.
- (v) B should be organized on Tuesday and should not be followed by D.

39. On which day there is no lecture?

- (A) Monday      (B) Friday      (C) Sunday      (D) None of these

40. How many Lectures are organized between C and D?

- (A) None              (B) Four              (C) Two              (D) Three

**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)14<sup>th</sup> Nov      (B)24<sup>th</sup> Dec      (C)14<sup>th</sup> June      (D) 17<sup>th</sup> 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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