

APTITUDE TEST 1

Student Placement Office, IIT Kanpur

Time : 60 minutes

Date: 24 August, 2014

Directions (1 to 5): Study the following information carefully and answer the given questions:

One of the Seven subjects Viz. Math's, Zoology, Botany, Chemistry, Physics, English and Statistics is taught on one day in a week starting from Monday and ending on Sunday. Chemistry is taught on Thursday. English is taught the day immediately next to the day when Zoology is taught. English is neither taught on Tuesday nor Saturday. Only one lecture is held between Chemistry and Botany. Two Lectures are scheduled between Math's and Zoology. Statistics is neither taught on Monday nor Sunday.

1. On which of the following days is Physics taught?

- a) Monday
- b) Wednesday
- c) Tuesday
- d) Thursday
- e) Friday

2. How many subjects are taught between Botany and Zoology?

- a) One
- b) Two
- c) Three
- d) Four
- e) None

3. Which of the following subjects is taught on Saturday?

- a) Botany
- b) Statistics
- c) Zoology
- d) Math's
- e) Physics

4. On which of the following days is Statistics taught?

- a) Tuesday

- b) Thursday
- c) Friday
- d) Wednesday
- e) Cannot be determined

5. If Statistics is related to Zoology and Physics is related to Botany in a certain way, then to which of the following would Chemistry be related to, following the same pattern?

- a) Maths
- b) Statistics
- c) Physics
- d) English
- e) Cannot be determined

Directions (6 to 8): Study the following information carefully and answer the given questions:

In a seven-storey building, having floors numbered one to seven, P,Q,R,S,T and V each live on a different floor. (The Ground Floor is numbered floor No.1, the floor above it floor No.2 and so on). One of the floors in the building is vacant. P lives on the fifth floor. No floor below fifth floor is vacant; also no odd numbered floor is vacant. Only S lives between 'T' and V. T does not live on an odd numbered floor. T does not live on a floor immediately above or immediately below R's floor. Q does not live on the bottom most floors.

6. Who lives on the top most floors?

- a) Q
- b) S
- c) R
- d) V
- e) No one as it is vacant

7. On which of the following floors does R Live?

- a) Seventh
- b) Sixth
- c) Third
- d) Second

- e) First

8. Which of the following floors is vacant?

- a) Seventh
- b) Sixth
- c) Third
- d) Second
- e) Fourth

Directions (9 to 13): Study the following information carefully and answer the given questions:

In a sports event, different games are scheduled to be held on seven days, starting on Monday and ending on Sunday. Two games are scheduled to be held on Saturday as well as on Sunday and one game on each of the remaining five days. The games to be held in these seven days are: Basketball, Football, Boxing, Sprinting, and Swimming, shooting, weightlifting, wrestling, and cycling, but not necessarily in the same order. Shooting is scheduled to be held on Thursday. Boxing and Cycling are scheduled to be held on the same day. Wrestling is scheduled to be held three days before basketball, i.e. two sports are scheduled between wrestling and basketball. Wrestling is not scheduled to be held on Wednesday. Weightlifting is scheduled immediately after the day boxing is scheduled. Football is scheduled immediately after the day wrestling is scheduled. Swimming is not scheduled on Monday.

9. Which of the following games is scheduled to be held on Friday?

- a) Basketball
- b) Wrestling
- c) Swimming
- d) Weightlifting
- e) Sprinting

10. Which of the following games is scheduled to be held on Sunday?

- a) Football
- b) Wrestling
- c) Basketball
- d) Cycling
- e) Swimming

11. On which of the following days is sprinting scheduled?

- a) Saturday
- b) Friday
- c) Wednesday
- d) Monday
- e) Cannot be determined

12. On which of the following days is weightlifting scheduled?

- a) Monday
- b) Tuesday
- c) Wednesday
- d) Friday
- e) Sunday

13. Shooting is related to Basketball in the same way as Wrestling is related to

- a) Sprinting
- b) Football
- c) Shooting
- d) Weightlifting
- e) Boxing

Directions (14 to 15): Given below is given a statement followed by two courses of action numbered I and II. You have to assume everything in the statement to be true and on the

basis of the information given in the statement, decide which of the suggested courses of action logically follow(s) for pursuing.

Give answer

- (A) If only I follows
- (B) If only II follows
- (C) If either I or II follows
- (D) If neither I nor II follows
- (E) If both I and II follow.

14. Statement: Severe drought is reported to have set in several parts of the country.

Courses of Action:

- I. Government should immediately make arrangement for providing financial assistance to those affected.**
- II. Food, water and fodder should immediately be sent to all these areas to save the people and cattle.**

15. Statement: A large number of people in ward X of the city are diagnosed to be suffering from a fatal malaria type.

Courses of Action:

- I. The city municipal authority should take immediate steps to carry out extensive fumigation in ward X.**
- II. The people in the area should be advised to take steps to avoid mosquito bites.**

Directions (16 to 18): Two statements numbered I and II are given. There may be cause and effect relationship between the two statements. These two statements may be the effect of the same cause or independent causes. These statements may be independent causes without having any relationship. Read both the statements in each question and mark your answer as

- (A) If statement I is the cause and statement II is its effect;
- (B) If statement II is the cause and statement I is its effect;
- (C) If both the statements I and II are independent causes;
- (D) If both the statements I and II are effects of independent causes; and
- (E) If both the statements I and II are effects of some common cause.

16. Statements:

- I. The prices of petrol and diesel in the domestic market have remained unchanged for the past few months.**
- II. The crude oil prices in the international market have gone up substantially in the last few months.**

17. Statements:

- I. The government has recently fixed the fees for professional courses offered by the unaided institutions which are much lower than the fees charged last year.**
- II. The parents of the aspiring students launched a severe agitation last year protesting against the high fees charged by the unaided institutions.**

18. Statements:

- I. The Reserve Bank of India has recently put restrictions on few small banks in the country.**
- II. The small banks in the private and co-operative sector in India are not in a position to withstand the competitions of the bigger in the public sector.**

Directions (19 to 20) : In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

- (A) If only conclusion I follows
- (B) If only conclusion II follows
- (C) If either I or II follows
- (D) If neither I nor II follows and
- (E) If both I and II follow.

19. Statements: In a one day cricket match, the total runs made by a team were 200. Out of these 160 runs were made by spinners.

Conclusions:

- I: 80% of the team consists of spinners.**
- II: The opening batsmen were spinners.**

20. Statements: The old order changed yielding place to new.

Conclusions:

I: Change is the law of nature.

II: Discard old ideas because they are old.

21. The ratio between the present ages of A and B is 5: 3 respectively. The ratio between A's age 4 years ago and B's age 4 years hence is 1 : 1. What is the ratio between A's age 4 years hence and B's age 4 years ago?

- a) 1 : 3
- b) 2 : 1
- c) 3 : 1
- d) 2 : 1
- e) None of these

22. A boy has 3 library tickets and 8 books of his interest in the library. Of these 8, he does not want to borrow Chemistry part II unless Chemistry part I is also borrowed. In how many ways can he choose the three books to be borrowed?

- a) 56
- b) 27
- c) 26
- d) 41

23. The average of five numbers is 49. The average of the first and the second numbers is 48 and the average of the fourth and fifth numbers is 28. What is the third number?

- a) 92
- b) 91
- c) 95
- d) Cannot be determined
- e) None of these

24. Pointing to a boy Uma said, "He is the son of my mother-in-law's only child". How is the boy related to Uma?

- a) Son
- b) Grandson
- c) Nephew
- d) Brother
- e) None of these

25. A's father is B's son-in-law. C, A's sister, is the daughter of P. How is P related to B?

- a) Daughter
- b) Daughter-in-law
- c) Son-in-law
- d) Cannot be determined
- e) None of these

26. A conical vessel is lying on a table with its base downwards. The capacity of the vessel is 500 liter and its vertical height is 150 cm. If 244 litre of water is put in the vessel, then what is the height of the water level in the conical vessel above the table?

- a) 25 cm
- b) 30 cm
- c) 35 cm
- d) 40 cm

27. The largest and the smallest angles of a triangle are in the ratio of 3 : 1 respectively. The second largest angle of the triangle is equal to 44° . What is the value of 150 per cent of the largest angle of the triangle?

- a) 149
- b) 129
- c) 153
- d) 173

28. The area of a square is four times the area of a rectangle. The length of the rectangle is 25 cm and its breadth is one cm less than one-fifths of its length. What is the perimeter of the square?

- a) 40 cm

- b) 60 cm
- c) 160 cm
- d) Can't be determined
- e) None of These

29. If the length of a rectangle is increased in the ratio 6 : 7 and its breadth is diminished in the ratio 5 : 4 then its area will be diminished in the ratio

- a) 17 : 16
- b) 15 : 14
- c) 9 : 8
- d) 8 : 7
- e) None of these

30. A can do a piece of work in 10 days and B in 20 days. They work together but 2 days before the completion of the work, A leaves. In how many days was the work completed?

- a) 6
- b) 10
- c) 9
- d) 8
- e) None of these

31. The G.C.D. of 1.08, 0.36 and 0.9 is :

- a) 0.03
- b) 0.9
- c) 0.18
- d) 0.108

32. Three numbers are in the ratio 1: 2: 3 and their H.C.F. is 12. The numbers are :

- a) 4, 8, 12
- b) 5, 10, 15
- c) 10, 20, 30
- d) 12, 24, 36

33. The ratio between the sale price and the cost price of an article is 7 : 5. What is the ratio between the profit and the cost price of that article ?

- a) 2 : 7
- b) 5 : 2
- c) 7 : 2
- d) Data inadequate
- e) None of these

34. A shopkeeper gives gives 12% additional discount on the discounted price, after giving an initial discount of 20% on the labelled price of a radio. If the final sale price of the radio is Rs. 704, then what is its labelled price ?

- a) Rs. 844.80
- b) Rs. 929.28
- c) Rs. 1000
- d) Rs. 999

35. What will be the remainder when $(67^{67} + 67)$ is divided by 68?

- a) 1
- b) 63
- c) 66
- d) 67

36. A 3-digit number $4a3$ is added to another 3-digit number 984 to give a 4-digit number $13b7$, which is divisible by 11. Then, $(a + b) = ?$

- a) 10
- b) 11
- c) 12
- d) 15

37. A lent \$ 5000 to B for 2 years and \$ 3000 to C for 4 years on simple interest at the same rate of interest and received \$ 2200 in all from both as interest. The rate of interest per annum is :

- a) 7%
- b) 5%
- c) 8%

- d) 10%
- e) None of these
- f) Can't be determined

Q 38 – 40 use the following table

Boston Celtics Season Statistics 2005–2010

Season	Total Points Scored	2-Point Field Goals Made	Field Goals Attempted	1-Point Free Throws Made	Free Throws Attempted
2009–10	8,136	3,039	6,294	1,559	2,090
2008–09	8,275	3,075	6,333	1,587	2,075
2007–08	8,245	2,986	6,286	1,677	2,176
2006–07	7,857	2,858	6,454	1,670	2,178
2005–06	8,003	2,951	6,322	1,664	2,204

38. What was the average number of 1-point free throws made during these five seasons ?

- a) 513.2
- b) 1350.4
- c) 1631.4
- d) 2144.6
- e) 2981.8

39. What percent of points scored during 2007-08 season came from 2-point field goals ?

- a) 20.3
- b) 36.2
- c) 72.4
- d) 76.2

40. If the remaining points from the 2006-07 season came from 3-point goals, approximately what percent of points scored during the season were 3 – points baskets ?

- a) 2.0
- b) 2.4
- c) 3.5
- d) 5.5
- e) 6