Question 1

In a class of 78 students 41 are taking French, 22 are taking German. Of the students taking French or German, 9 are taking both courses. How many students are not enrolled in either course?

- A. 6
- B. 15
- C. 24
- D. 33
- E. 54

Question 2

$2^{30} + 2^{30} + 2^{30} + 2^{30} =$

- A. 8^{120}
- B. 8^{30}
- C. 2^{32}
- D. 2^{30}
- E. 2^{26}

Question 3

Jo's collection contains US, Indian and British stamps. If the ratio of US to Indian stamps is 5 to 2 and the ratio of Indian to British stamps is 5 to 1, what is the ratio of US to British stamps?

- A. 5 : 1
- B. 10 : 5
- C. 15 : 2
- D. 20 : 2
- E. 25 : 2

Question 4 The distance from town A to town B is five miles. C is six miles from B. Which of the following could be the distance from A to C?

I 11
II 1
III 7

- A. I only
- B. II only
- C. I and II only
- D. II and III only
- E. I, II, or III.

Question 5

A car averages 27 miles per gallon. If gas costs $4.04 per gallon, which of the following is closest to how much the gas would cost for this car to travel 2,727 typical miles?

1. **A.** $ 44.44
2. **B.** $109.08
3. **C.** $118.80
4. **D.** $408.04
5. **E.** $444.40

Question 6

What is the greatest common factor of 42, 126, and 210 ?

1. **F.** 2
2. **G.** 6
3. **H.** 14
4. **J.** 21
5. **K.** 42

Question 7

Sales for a business were 3 million dollars more the second year than the first, and sales for the third year were double the sales for the second year. If sales for the third year were 38 million dollars, what were sales, in millions of dollars, for the first year?

1. **A.** 16
2. **B.** 17.5
3. **C.** 20.5
4. **D.** 22
5. **E.** 35

Question 8

The five members of a band are getting new outfits. Shirts cost $12 each, pants cost $29 each, and boots cost $49 a pair. What is the total cost of the new outfits for all of the members?

A $90
B $95
C $450
D $500

Question 9

You must lay out a seating plan for a small office. The office is 10 ft by 16 ft. The Agency guideline is 100 square feet for an Associate Staff analyst (with desk and chair and cabinets) and 49 square feet for a clerical assistant. Following the Agency guidelines, what is the maximum number of staff that can be accommodated in the office?

a) One b) Two c) Three d) Four, with crowding

Question 10

Assume the Department of Citywide Administrative Services is giving an Associate Staff Analyst Open Competitive Exam and 5,712 candidates have filed to take the exam.

The Board of Education has offered the use of 32 classrooms at Roosevelt High School, 54 classrooms at Julia Richmond High School, 60 classrooms at the Music and Art High School and 78 classrooms at Murray Bergstrom High School for the exam. DCAS is limited to 36 candidates per classroom. What is the smallest number of schools that DCAS could use to avoid overcrowding. (You may ignore geographical convenience to the candidates.)

a) 4 b) 3 c) 2 d) It depends.

Question 11

The City used to pay civil servants once a month, years ago. By the 1960's the City had gone generally to biweekly payments. As a result, twenty-six biweekly pay checks are issued most years, but there are a number of days left over not covered by the pay checks.

In a non-leap year, how many days are not covered by the twenty-six paychecks?

a) 1 b) 2 c) 7 d) 14

Questions 12 – 14

John's hours are from 9:15 AM until 5:15 PM with duty free (unpaid) hour for Lunch. John worked overtime on Monday through Friday for two weeks straight. The first week he finished work at 6:30, 6:15, 6:15, 7:15 and 6:15 PM. The second week the work was more extensive and he worked until 7:30, 7:30, 7:15, 7:15 and 7:15 PM.

12) As a City employee, John's union contract calls for credit to be given in quarter hour segments after the first hour of overtime. How many hours did John work over time in the first week?

a) 6 b) 6 ¼ c) 6 ½ d) 6.15

13) How many hours did John work in the second week?

a) 10 b) 10.30 c) 10 ½ d) 11

14) John's union contract calls for time and one half after forty hours per week of work. John earns $20 per hour. How much does John earn for overtime for the whole two weeks worked.

a) Can't be computed. b) 102.50 c) 325.00 d) 402.50

Question 15

You are an Administrative Staff Analyst (Managerial) and you are demoted from your $90,000 job. Your gross salary drops by 20%. Soon, however, your Agency recognizes your true value and offers to promote you with a 20% raise. If you accept, your new salary is _____. (Ignore union contractual longevity monies.)

a) $90,000 b) $108,000 c) $86,400 d) $72, 000

Question 16 - 21

DIRECTIONS : Questions 23 to 27 inclusive are based on the data given below. These data show the performance rates of the employees in a particular division for a period of six months.

Employee	Jan.	Feb.	Mar.	April	May	June
A	96	53	64	48	76	72
B	84	58	69	56	67	79
C	73	68	71	54	59	62
D	98	74	79	66	86	74
E	89	78	67	74	75	77

23. According to the data given above, the average monthly performance for a worker is, MOST NEARLY,
A. 66 B. 69 C. 72 D. 75

24. According to the data given above, the mean monthly performance for the division is, MOST NEARLY,
A. 350 B. 358 C. 387 D. 429

25. According to the data given above, the employee who shows the least month-to-month variation in performance is
A. A B. B C. C D. D

26. According to the data given above, the employee who shows the GREATEST range in performance is
A. A B. B C. C D. D

27. According to the data given above, the median employee with respect to performance for the six-month period is
A. A B. B C. C D. D

28. If the rate of a representative sample of workers in performing an element of work is plotted on a graph prior to the establishment of standards, the graph will often approximate a normal curve. In such a case, the percentage of workers whose time is more than two standard deviations above the mean is APPROXIMATELY
A. 2 1/2% B. 5% C. 10% D. 25%