

**B.Tech. SEM -VI (Chemical/ Civil/ Electrical/ Mechanical/
Production/ Computer/ Info. Tech./ Electronics / Bio Medical / E & TC)
2014 Course (CBCS) : SUMMER - 2019
SUBJECT: PROFESSIONAL SKILLS DEVELOPMENT - VI**

Day: Monday
Date: 03/06/2019

S-2019-2713

Time: 02.30 PM TO 05.30 PM
Max. Marks: 100

N.B. :

- 1) All the questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to **ALL** sections should be written in the **SAME** answer book.

**SECTION – I
(Quantitative Aptitude and Logical Reasoning)**

Q.1 Solve the following questions. **(10)**

- a) 'A' speaks truth in 75% of cases and 'B' in 80% of cases. In what percent of cases are they likely to contradict each other in narrating the same event?
i) 35% ii) 5% iii) 45% iv) 22.5%
- b) Two cards are drawn from a pack of well shuffled cards. Find the probability that one is a club and other is king.
i) $\frac{1}{13}$ ii) $\frac{4}{13}$ iii) $\frac{1}{52}$ iv) $\frac{1}{26}$
- c) The odds against an event are 5:3 and the odds in favour of another independent event are 7:5. Find the probability that at least one of the two events will occur.
i) $\frac{52}{96}$ ii) $\frac{69}{96}$ iii) $\frac{71}{96}$ iv) $\frac{13}{96}$
- d) You toss a coin and roll a dice. What is the probability of getting a tail and a 4 on the dice?
i) $\frac{1}{2}$ ii) $\frac{1}{6}$ iii) $\frac{1}{8}$ iv) $\frac{1}{12}$
- e) An urn contains 6 red, 5 blue and 2 green marbles. If three marbles are picked at random. What is the probability at least one is blue?
i) $\frac{28}{143}$ ii) $\frac{115}{197}$ iii) $\frac{28}{197}$ iv) $\frac{115}{143}$

Q.2 Solve the following questions of permutation and combination. **(10)**

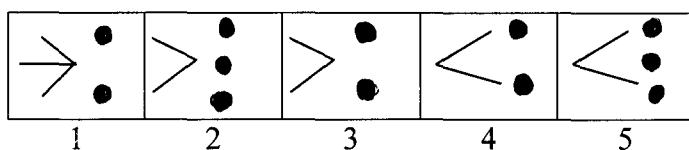
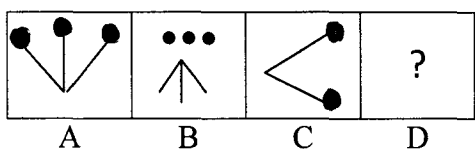
- a) In how many ways can the letters of the word "LEADER" be arranged?
i) 72 ii) 144 iii) 360 iv) 720
- b) In how many different ways can the letters of the word "CORPORATION" be arranged so that the vowels always come together?
i) 810 ii) 1440 iii) 2880 iv) 50400
- c) 6 parallel lines are intersected by 5 other parallel lines. The total number of parallelogram formed is-
i) 130 ii) 150 iii) 170 iv) 190
- d) How many permutations of 3 different digits are three, chosen from the ten digits 0 to 9 inclusive?
i) 84 ii) 120 iii) 720 iv) 504
- e) How many three letter words are formed using the letters of the word "TIME"?
i) 12 ii) 20 iii) 16 iv) 24

P.T.O.

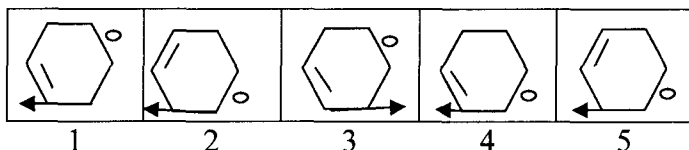
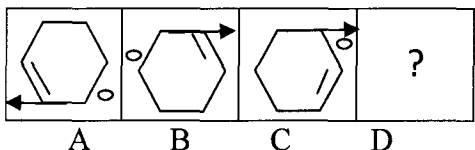
Q.3 Solve the following questions.

(10)

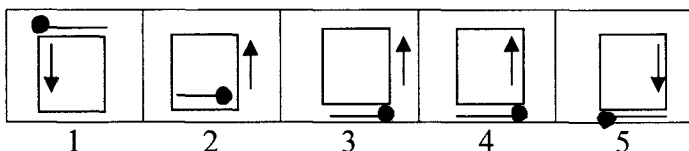
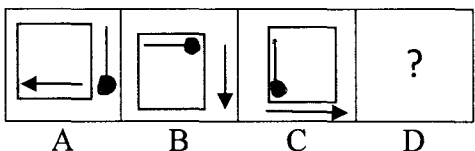
a)



b)



c)



d) Complete the series:

45, 54, 47, ? 49, 56, 51, 57, 53

e) Complete the series:

66, 36, 18, ?

Q.4 Solve the following questions.

(10)

a) How much does a watch gain or lose per day if its hands coincide every 64 minutes of the correct time?

i) Loses 90 minutes

ii) Gains 90 minutes

iii) Loses $32\frac{8}{11}$ minutes

iv) Gains $32\frac{8}{11}$ minutes

b) A clock is set right at 9 a.m. The clock gains 30 seconds per hour. What will be the true time when the clock indicates 3:39 p.m. on the 3rd day afternoon?

i) 4 p.m.

ii) 3 p.m.

iii) 1 p.m.

iv) 2 p.m.

c) 8th December, 2007 was Saturday. What day of the week was it on 8th December, 2006?

i) Sunday

ii) Tuesday

iii) Friday

iv) Wednesday

d) How many years had 29 days in February from 2001 to 2100?

i) 26

ii) 25

iii) 23

iv) 24

e) At what time, between 3' o'clock and 4' o'clock, both the hour hand minute hand coincide each other?

i) 3:30

ii) $3:16\frac{4}{11}$

iii) $3:16\frac{11}{4}$

iv) $3:16\frac{7}{11}$

Q.5 Study the following information carefully and answer the given questions. **(10)**

When a word and number arrangement machine is given an input: Line of words and numbers. It arranges them following a particular rule. The following is an illustration of input and rearrangement (All the numbers are in two digits.)

Input : Light 19 weight 37 for 27 motor 43 bikes 51

Step – I : bike 18 light weight 37 for 27 motor 43 51

Step – II : for 36 bike 18 light weight 27 motor 43 51

Step – III : light 42 for 36 bike 18 weight 27 motor 51

Step – IV : Motor 28 light 42 for bike 18 weight 51

Step – V : Weight 52 motor 28 light 42 for 36 bike 18

Input: set 23 taken 9 for 41 hard 33 work 59

- a) Which element is exactly between 10 and 58 in step – IV?
 - i) 22 ii) 40 iii) Hard iv) Step v) None of these
- b) What is the difference between the number which is second from left-end in Step - IV and the number which is second from the right-end in Step – III?
 - i) 22 ii) 40 iii) Hard iv) Step v) None of these
- c) How many steps are required to complete the above arrangements?
 - i) Four ii) Seven iii) Three iv) Six v) five
- d) In which step the elements “22 23 work” found in the same order?
 - i) Step - IV ii) Step - V iii) Step- II iv) Step - I v) Step -III
- e) In Step – III “step is related to 58” and “hard is related to 40”. In the same way taken is related to?
 - i) For ii) Work iii) 33 iv) 9 v) None of these

SECTION - II

(Verbal Ability and English Grammar)

Q.6 A) Spot the error part in the following sentences. **(05)**

- i) I am hearing a lot (a) / about the problem (b) / of AIDS theses days (c) / no error (d)
- ii) Because of his innocence (a) / he can not distinguish (b) / a cheat for an honest person (c) No error (d)
- iii) He did (a) / nothing else (b) / than play (c) / no error (d)
- iv) To make him succeed (a) the correct thing to do is to punish (b) / him until he does not try (c) / no error (d)
- v) How do you say that (a) / neither he or Ramesh (b) / has qualified in the examination (c) / no error (d)

B) The sentences given below are incorrect. There is a mistake in the use of prepositions. Correct the sentences by using right prepositions. **(05)**

- a) With the least hesitation, he gave the cap to the beggar.
- b) She was plunged in the depths of sorrow.
- c) He lived all alone in a hut by the end of the town.
- d) You can see both these wonders fairly comfortably with two days.
- e) Seeta is suffering with cold.

Q.7 Write the meanings of the following pairs of words that are often confusing (10) and form a sentence for each of them in your own words.

- | | |
|---------------------------|---------------------------|
| i) Bite, Bight | vi) Boar, Bore |
| ii) Censer, Sensor | vii) Chaff, Chap |
| iii) Dawn, Don | viii) Dean, Din |
| iv) Dale, Dwell | ix) Colon, Colonel |
| v) Deem, Dim | x) Deign, Den |

SECTION – III

(Soft Skills)

- Q.8 a)** State the different causes of stress. How could one manage stress at a workplace? (05)
- b)** What are different limitations of business letters? (05)
- c)** What qualities are tested in a group discussion for getting selected in a company? (05)
- d)** List down four goals of business communication and explain how to achieve each. (05)
- e)** What are differences between a tender and a notice? (05)
- f)** State different types of reports and their importance in the corporate world. (05)

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