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Roll No. .....

# XCS–600/601(A)

## B. TECH. (SIXTH SEMESTER)

## MID SEMESTER EXAMINATION,

## April/May, 2022

**(All Branches)**

CAREER SKILLS

**Time : 1½ Hours**

**Maximum Marks : 50**

**Instructions for students :**

(1) This paper consists of 50 questions.

(2) All questions are compulsory.

(3) Each question carries equal marks.

(4) Calculator is not allowed.

(5) There is no negative marking.

(6) It is compulsory to mention the SET in the OMR sheet.

*P. T. O.*

## SET–A

**Direction (Q. 1-Q. 5) :** Choose the correct alternative for the underlined part of the sentence and mark that as your answer.

1. The number of school drop-outs are increasing at an alarming rate in most of the schools in northern areas of California.
   (a) The number of school drop-outs are increasing at
   (b) The number of school drop-out are increasing at
   (c) The number of school drop-outs is increasing at
   (d) The number of school drop-outs are increasing with

2. The majority of the lecturers believe that the student has not copied in the examination.
   (a) The majority of the lecturers believe
   (b) The majority of the lecturers believes
   (c) The majority of the lecturers has believed
   (d) The majority of the lecturers has to believe



3. More than one successful candidate have cleared the examination for one of the popular IT companies in South Delhi.
   (a) More than one successful candidate have
   (b) More than one successful candidate has
   (c) More than one successful candidates have
   (d) More than one successful candidates has

4. Many senior members now believe that the disagreement in the party over education issues decrease the possibility that significant action will be taken this year to combat the rising cost of higher education.
   (a) issues decrease the possibility for significant action being taken
   (b) issue decrease the chances of action being undertaken
   (c) issues decreases the possibility for significant action being undertaken
   (d) issues decreases the possibility that significant action will be taken

5. David, the owner of this café, is one of the diligent men who perform the task.

(a) who perform the task.

(b) who performs the task.

(c) who is performing the task.

(d) who has performed the task.

**Direction (Q. 6-Q. 11) :** Read the sentences to find out whether there is any error in it. The error, if any, will be in one part of the sentence. The letter of that part is the answer.

6. Susan is one of those students (a) / who asks questions to the instructor (b) / for every chance that (c) / she gets. (d)

7. Each of these women feel that (a) / she had read the care instructions (b) / before washing (c) / the delicate and expensive dresses. (d)

8. There are many benefits to running because (a) / it is both a rigorous form of exercise and a natural stress-reducer; (b) / not only do runner experience good health, (c) / but lung functioning increases, too. (d)



9. If we have read the reviews more carefully, (a) / we would have understood that the hospitals (b) / in this city rob people without (c) / giving any proper treatment. (d)

10. Even though the jury (a) / wants to believe that (b) / the defendant did not feed Elvis to the Loch Ness Monster, (c) /much of the evidence point to her guilt. (d)

11. My dog Rio, together with Cherry the cat (a) /, like to play with money; (b) / the cat swats crumpled bills onto the floor (c) / where the dog shreds them to pieces. (d)

**Direction (Q. 12-Q. 16) :** Find out which part of the sentence has an error. Mark that part as your answer.

12. (a) If I had funds

(b) I would have purchased

(c) that grand mansion.

(d) No error

13. (a) If you mix

(b) red and blue

(c) you will get purple.

(d) No error

14. (a) If I were

(b) the speaker of Lok Sabha,

(c) I would not tolerate any pandemonium in the house.

(d) No error

15. (a) The water in the pool

(b) would have been warmer

(c) if the sun would have shone more often.

(d) No error

16. (a) Had I been more careful,

(b) I would not

(c) commit this blunder.

(d) No error



**Direction (Q. 17-Q. 25) :** Fill in the blanks with the most appropriate option.

17. Shakespeare, a(n) _____ writer, entertained audiences by writing many tragic and comic plays.

(a) pro bono

(b) generic

(c) dutiful

(d) prolific

18. The_____ noises made for war now, were silent then.

(a) indispensable

(b) bellicose

(c) digressive

(d) propulsive

19. Over the years the Wilsons slowly _____ upon the Jacksons' property, moving the stone markers that divided their lots farther and farther onto the Jacksons' land.

(a) encroached

(b) jettisoned

(c) conjoined

(d) repudiated

20. Choosing a small, fuel-efficient car is a _____ purchase for a recent college graduate.

(a) sardonic

(b) tedious

(c) unhallowed

(d) judicious

21. Ram's glance was a _____ invitation to speak later in private about events of the meeting.

(a) treacherous

(b) scintillating

(c) tactful

(d) tacit



22. As the _____ in Romeo and Juliet, Romeo is a hero able to capture the audience's sympathy by continually professing his love for Juliet.

(a) protagonist

(b) enigma

(c) façade

(d) activist

23. I have always admired Seymour's _____; I've never seen him rattled by anything.

(a) aplomb

(b) confluence

(c) propriety

(d) compunction

24. It is helpful for salesmen to develop a good _____ with their customers in order to gain their trust.

(a) platitude

(b) rapport

(c) ire

(d) besmirch

25. In a gesture of _____, the gentleman placed his jacket over the rain puddle so his date would not ruin her shoes.

(a) charlatan

(b) slothfulness

(c) chivalry

(d) timid

26. The probability that a student revises for the GATE exam is 0.3. If a student revises, the probability that he/she qualify is 0.8, otherwise it is only 0.2. Given that a student qualified the GATE exam, find the probability that the student revised.

(a) 6/25

(b) 12/19

(c) 13/23

(d) 16/31



27. Three fair coins were tossed simultaneously. What is the probability of getting 2 heads ?

(a) 1/8

(b) 3/8

(c) 1/4

(d) 3/4

28. In a given race, the odds in favour of horses H1, H2 and H3 are 2 : 3, 1 : 3 and 1 : 4 respectively. What is the probability that one of them wins the race ?

(a) 0.65

(b) 0.75

(c) 0.85

(d) cannot be determined

29. Out of 15 students of a class, 8 are boys and 7 are girls. Two students were selected for a job. In how many ways the selection can be done if 1 boy and 1 girl were selected ?

(a) 56

(b) 15

(c) 112

(d) 102

30. How many 3 digit even numbers can be formed if repetition of digits is not allowed ?

(a) 504

(b) 729

(c) 648

(d) 512

31. In how many ways can the letters of the word MANAGE be arranged such that all the vowels always appear together ?

(a) 720

(b) 120

(c) 84

(d) 72



32. There are 11 boys and 8 girls in a class. What is the total number of gifts exchanged if each student gives gift to every other student of same gender ?

(a) ${}^{11}P_2 + {}^{8}P_2$

(b) ${}^{19}C_2$

(c) ${}^{11}P_2 \times {}^{8}P_2$

(d) ${}^{11}C_2 + {}^{8}C_2$

33. How many total 4-digit numbers are there if repetition of digits is not allowed and the number is divisible by 5 ?

(a) 1008

(b) 896

(c) 952

(d) None of the above

34. If there are 5 parallel horizontal lines and 6 parallel vertical lines in a plane, what is the number of possible rectangles ?

(a) 75

(b) 150

(c) 225

(d) 300

35. A box contains 5 defective and 15 non-defective bulbs. Two bulbs are chosen at random. What is the probability that both the bulbs are defective ?

(a) 1/20

(b) 1/19

(c) 3/19

(d) 3/20

36. There are 6 identical Reasoning books and 4 non-identical English books in a library. In how many ways we can arrange the books in a shelf (in a row) such that no 2 English books are adjacent to each other ?

(a) $6! \times {}^{7}C_4$

(b) $(10!/6!) \times {}^{7}P_4$

(c) ${}^{7}C_4$

(d) ${}^{7}P_4$



37. In how many ways 10 boys and 9 girls of a class can be seated around a circular table ?

(a) 19!

(b) 18!

(c) 10! + 9!

(d) 9! × 8!

38. What is the probability that a two-digit number selected at random will be a multiple of '3' and not a multiple of '5' ?

(a) 2/15

(b) 4/15

(c) 11/45

(d) 23/45

39. Out of 17 applicants, 8 are boys and 9 are girls. Two persons are to be selected for the job. Find the probability that at least one of the selected persons will be a girl.

(a) 27/34

(b) 25/34

(c) 19/34

(d) 21/34

40. In how many ways we can distribute 8 identical pencils among 3 kids if each kid must get at least 1 pencil ?

(a) $^{10}C_2$

(b) $^{8}C_3$

(c) $^{8}P_3$

(d) $^{7}C_2$

41. The team of 7 students is to be formed out of 7 girls and 5 boys for the upcoming college fest. In how many ways this can be done if at most two boys are included ?

(a) 210

(b) 246

(c) 188

(d) 168



42. In a class of 50 students 30 were passed in English and 25 were passed in Hindi. 10 students were passed in both the subjects. What is the probability that a student of class is passed in English only ?

(a) 0.3

(b) 0.35

(c) 0.4

(d) 0.45

43. The probability that Akram will solve the problem is 1/2 and the probability that Brijesh will solve it is 2/3. What is the probability that the problem will be solved by exactly one of them ?

(a) 1/2

(b) 1/3

(c) 1/4

(d) 1/5

44. In how many ways can 3 numbers be selected from the first 20 natural numbers such that exactly one of them is a multiple of 6 ?

(a) $^{17}C_2$

(b) $^{20}C_3$

(c) $^{3}C_1 \times {}^{17}C_2$

(d) $^{3}C_1 + {}^{17}C_2$

45. How many integers, greater than 999 but not greater than 7000, can be formed with the digits 0, 1, 2, 5 and 7, if repetition of digits is allowed ?

(a) 499

(b) 501

(c) 399

(d) 376

46. A bag contains 9 red and 6 green balls. What is the probability that 3 balls are red and 2 are green if 5 balls are drawn at random ?

(a) 8/19



(b) 19/41

(c) 41/60

(d) 60/143

47. If A and B be two events in a sample space such that P (A) = 2/5, P (B) = 1/2 and P (A ∪ B) = 3/5. What is the value of P (A ∩ B) ?

(a) 0.3

(b) 0.1

(c) 0.4

(d) 0.9

48. Two cards are to be chosen randomly from the pack of 52 cards. What is the probability of getting 2 spade cards with replacement ?

(a) 1/17

(b) 1/16

(c) 1/15

(d) 1/14

49. One card is drawn from a pack of 52 cards. What is the probability that the card drawn is red or ace ?

(a) 3/7

(b) 6/11

(c) 7/12

(d) 7/13

50. Two fair dice were rolled simultaneously. What is probability of getting a sum of 10 if it is known that 5 appeared on the first one ?

(a) 1/6

(b) 1/9

(c) 1/12

(d) None of the above