49. What is the probability of arranging letters of the word AGAIN such that vowels are always together ?

   (a) 2/5

   (b) 3/10

   (c) 1/5

   (d) 1/10

50. Two fair dice were rolled simultaneously. What is probability of getting a sum of 5 or less ?

   (a) 1/6

   (b) 2/9

   (c) 7/18

   (d) 5/18

H Roll No. ....

XCS–600/601(B)

B. TECH. (SIXTH SEMESTER)

MID SEMESTER

EXAMINATION, April, 2023

(All Branches)

CAREER SKILLS

Time : 1½ Hours

Maximum Marks : 50

Instructions for students :

(i) This paper consists of 50 questions.

(ii) All questions are compulsory.

(iii) Each question carries equal marks.

(iv) Calculator is not allowed.

(v) There is no negative marking.

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

P. T. O.

SET—B

Directions (Q. Nos. 1–5) : Read the sentences to find out whether there is any error in them. The error, if any, will be in one part of the sentence. The letter of that part is the answer.

1. The boss reminded them (a) / of the saying that honesty was the best policy (b) / and told them that they better be (c) / honest in their work. (d)

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

3. 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)

4. 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 guitt. (d)

5. Just as he was driving along the road (a) / a bus pulled up (b) / and the bus conductor asked him (c) / if he has seen a briefcase on the road. (d)

Directions (Q. Nos. 6–10) : Choose the correct alternative for the underlined part of the sentence and mark that as your answer.

6. The tigers, <u>each of which are a fine specimen, was raised</u> entirely in captivity and never intended to be released into the wild.

   (a) each of which are a fine specimen, was raised.

   (b) each of which are a fine specimen, were raised.

   (c) each of which is a fine specimen, was raised.

   (d) each of which is a fine specimen, were raised.

7. Many senior BJP leaders now believe that the tiff in the party over education <u>issues decrease the possibility that significant action will be taken</u> 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

8. In such a dismal investment climate, neither of the long/short equity funds have greater than a 50% chance of outperforming their benchmark.

(a) neither of the long/short equity funds has greater than a 50% chance of outperforming its benchmark.

(b) neither of the long/short equity funds have a greater than 50% chance of outperforming their benchmarks.

(c) neither of the long/short equity funds have greater than a 50% chance of outperforming its benchmark.

(d) neither of the long/short equity funds has greater than a 50% chance of outperforming their benchmarks.

9. He advised me to do as he did but I did not pay any heed to his advice.

(a) He advised me to do as he did but I did not pay.

(b) He advised me to do as he had done but I did not pay.

(c) He advised me to do as he did but I had not paid.

(d) He advised me to do as he had done but I had not paid.

10. A majority of the computer professionals recommends that effective measures should be taken against software policy.

(a) A majority of the computer professionals recommends

(b) A majority of the computer professional recommends

(c) A majority of the computer professional recommend

(d) A majority of the computer professionals recommend

Directions (Q. Nos. 11-18) : Fill in the blanks with the most appropriate option to render the sentence meaningful.

11. Shakespeare, a _____ writer, entertained audiences by writing many tragic and comic plays.

    (a) pro bono

    (b) generic

    (c) gibberish

    (d) prolific

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

    (a) sardonic

    (b) tedious

    (c) delectable

    (d) judicious

13. The _____ noises made for war now, were silent then.

    (a) indispensable

    (b) bellicose

    (c) digressive

    (d) propulsive

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

    (a) treacherous

    (b) ephemeral

    (c) tactful

    (d) tacit

15. 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

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

    (a) aplomb

    (b) confluence

    (c) propriety

    (d) compunction

17. 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

18. 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

Directions (Q. Nos. 19–25) : Find out which part of the sentence has an error. Indicate that part as your answer.

19. (a) Was it him

   (b) who got injured in the accident

   (c) in which a bus collided with a car,

   (d) took a sharp left and crashed into a school building ?

20. (a) A before Fred could reply back, or whack her in the mouth,

   (b) which would have been Dean's first choice,

   (c) the front doorbell interrupted the tense gathering.

   (d) No error

21. (a) One who has strong work credentials and a college degree

   (b) is more likely to be hired

   (c) than those who has only the degree.

   (d) No error

22. (a) A he's been wasting his time

   (b) singing in that Rolling Stones band for too long.

   (c) It's high time he starts looking after his family

   (d) No error

23. (a) If I had funds

   (b) I would have purchased

   (c) that grand mansion.

   (d) No error

24. (a) If I were

   (b) the speaker of Lok Sabha,

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

   (d) No error

25. (a) In Mrs. Curall's office, Ruben feigned the flu. He hoped to be excused from class, get an extension on his paper, and spend the afternoon playing tennis with his friends.

   (b) In Mrs. Curall's office, Ruben feigned the flu. He was hoping to be excused from class, get an extension on his paper, and spend the afternoon playing tennis with his friends.

   (c) In Mrs. Curall's office, Ruben feigned the flu. He hopes to be excused from class, get an extension on his paper, and spending the afternoon playing tennis with his friends.

   (d) In Mrs. Curall's office, Ruben feigned the flu. He hoped to be excused from class, got an extension on his paper, and spend the afternoon playing tennis with his friends.

26. The number of straight lines that can be drawn out of 12 points of which 8 are collinear is :

   (a) 59

   (b) 29

   (c) 49

   (d) 39

27. Find the sum of all the 4 digit numbers that can be formed with the digits 3, 4, 5 and 6 :

   (a) 119988

   (b) 11988

   (c) 191988

   (d) None of these

28. Two trains start from A and B and move towards B and A respectively. Train from A starts at 1 p.m. and reaches B at 5 p.m. while the train from B starts at 12 noon to reach A at 3 p.m. After how much time from 12 noon will the 2 trains meet ?

   (a) 2 and 1/7 hours

   (b) 1 and 1/7 hours

   (c) 2 and 2/7 hours

   (d) 1 and 2/7 hours

29. A man on a motorcycle is moving on a straight road at the speed of 54 kmph. Half a minute later a car starts from the same point and moves in the same direction at a speed of 20 m/sec. How far from the start will the man on the motorcycle reach before he is overtaken by the car ?

   (a) 1200 m

   (b) 1500 m

   (c) 1800 m

   (d) 1000 m

30. The speed of a boat in still water is 5 kmph while the speed of the stream is X kmph. A person on the boat going upstream can see a log of wood at a distance of 12 km floating towards the boat. In how much time will the boat reach the log of wood ?

   (a) 2 hrs. 40 minutes

   (b) 2 hrs. 24 minutes

   (c) 3 hrs.

   (d) Cannot be determined

31. In a round robin chess tournament each player played against every other player exactly once. If the total number of matches played is 171, find the number of players in the tournament :

   (a) 17

   (b) 20

   (c) 19

   (d) None of these

32. In how many ways can you rearrange the word JUMBLE such that the rearranged word starts with a vowel ?

   (a) 120

   (b) 240

   (c) 360

   (d) 60

33. A group consists of 4 girls and 7 boys. In how many ways can a team of 5 members be selected if the team has at least one boy and one girl ?

   (a) 350

   (b) 441

   (c) 421

   (d) 371

34. A train 200 m long can cross a man standing on a platform in 6 seconds. In how much time can the train cross half the length of a tunnel which is 100 m long ?

    (a) 7.5 sec

    (b) 10 sec

    (c) 15 sec

    (d) 10.5 sec

35. A boy goes from home to school at a certain speed and is late by 10 minutes. When he increases his speed by 20%, he is able to reach 5 minutes earlier. If he wants to be on time on a particular day, how much time should be taken ?

    (a) 75 minutes

    (b) 85 minutes

    (c) 65 minutes

    (d) 80 minutes

36. The speed of a boat in still water is 8 kmph while the speed of the stream is 1.5 kmph. If the boat has to go a distance of 30 km upstream and come back to the starting point, find the ratio of the time taken upstream to the time taken downstream :

    (a) 16 : 13

    (b) 19 : 13

    (c) 16 : 3

    (d) 9 : 7

37. 6 letters have to be put into 6 envelopes. In how many ways can this be done such that no letter goes into the right envelope ?

    (a) 165

    (b) 240

    (c) 265

    (d) 320

38. Four digit numbers are to be formed using the digits 0, 1, 2, 3, 4 and 5 without repetition. Find the probability that the number formed is an even number :

    (a) 13/25

    (b) 1/2

    (c) 1/5

    (d) 21/37

39. In how many ways can 7 boys and 4 girls be seated in a straight line such that no two girls are together ?

    (a) 4! × 7!

    (b) 4! × 7P4

    (c) 7! × 8P4

    (d) 8! × 7P4

40. All possible arrangements of the letters of the word "ANNUM" are being considered. Find the word which will have a rank of 40 :

    (a) NNMAU

    (b) NMNAU

    (c) NNUAM

    (d) NNMUA

41. Aakash and Anant are playing chess. The probability that Aakash wins a match between him and Anant is 0.8. Both played 3 games which are independent to each other. What is the probability that Aakash will win exactly 2 games ?

    (a) 48/125

    (b) 53/125

    (c) 63/125

    (d) 87/125

42. A train 150 m long passes a pole in 15 seconds and it crosses another train whose length is 1/3rd of its length travelling in the opposite direction in 8 seconds. What is the speed of the second train ?

    (a) 60 km/h

    (b) 90 km/h

    (c) 72 km/h

    (d) 54 km/h

43. A task is assigned by team leader to 2 members Anthony and Iqbal separately. The probability that Anthony will complete the task is 2/3 and the probability that Iqbal will complete the task is 3/4. What is the probability that the task will be completed ?

    (a) 11/12

    (b) 10/11

    (c) 8/9

    (d) 7/8

44. A candidate is required to answer 7 questions out of 12 questions, which are divided into two groups, each containing 6 questions. He is not permitted to attempt more than 5 from either group. In how many different ways can he choose the seven questions ?

(a) 640

(b) 780

(c) 920

(d) 1020

45. 2 people A and B start from a point and move around a circle of circumference 150 m in the same direction. Their speeds are 25 m/sec and 40 m/sec respectively. How many times will they meet in a race of 6000 m ?

(a) 24

(b) 30

(c) 15

(d) Cannot be determined

46. In how many different ways can we pick 2 numbers from 1 to 50 such that they are neither divisible by 3 nor divisible by 4 ?

(a) 28C2

(b) 27C2

(c) 26C2

(d) 24C2

47. In how many ways can we distribute 8 identical prizes to 4 different students ?

(a) 4^8

(b) 165

(c) 495

(d) 8^4

48. Squares of dimension $(n \times n)$ are being selected at random on a chessboard. Find the probability that the square so selected is of dimension 2×2 :

(a) 1/51

(b) 49/204

(c) 16/51

(d) None of these