99. Two pipes A and B can fill a cistern in 15 hours and 10 hours respectively. A tap can empty the full cistern in 30 hours. All the three taps were open for 2 hours, when it was remembered that the emptying tap had been left open. It was then closed. How many hours more would it take for the cistern to be filled ?

(a) 4 hr. 30 min.

(b) 4 hr. 12 min.

(c) 4 hr. 24 min.

(d) 4 hr. 35 min.

100. In a 60 litres mixture, the ratio of milk and water 2 : 1. If this ratio is to be 1 : 2, then the quantity of water to be further added is :

(a) 20 litres

(b) 30 litres

(c) 40 litres

(d) 60 litres

Roll No. ....

KCS–601/XCS–600(A)

B. TECH. (CS/ME)
(SIXTH SEMESTER)
END SEMESTER
EXAMINATION, June, 2023
CAREER SKILLS

Time : Three Hours

Maximum Marks : 100

Instructions for students :

) This paper consists of 100 questions.

i) All questions are compulsory.

ii) Each question carries equal marks.

v) Calculator is not allowed.

) There is no negative marking for incorrect response.

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

P. T. O.

SET–A

Directions (Q. Nos. 1-10) : Read the passage given below and answer the questions that follow : To teach is to create a space in which obedience to truth is practiced. Space may sound like a vague, poetic metaphor until we realize that it describes experiences of everyday life. We know what it means to be in a green and open field; we know what it means to be on a crowded rush hour bus. These experiences of physical space have parallels in our relations with others. On our jobs, we know what it is to be pressed and crowded, our working space diminished by the urgency of deadlines and competitiveness of colleagues.

But then there are times when deadlines disappear and colleagues cooperate, when everyone has space to move, invent and produce with energy and enthusiasm. With family and friends, we know how it feels to have unreasonable demands placed upon us, to be boxed in the expectations of those

nearest to us. But then there are times when we feel accepted for who we are (or forgiven for who we are not), times when a spouse or a child or a friend gives us the space both to be and to become. Similar experiences of crowding and space are found in education. To sit in a class where the teacher stuffs our minds with information, organizes it finally insists on having the answers while being utterly uninterested in our views, and forces us to grim competition for grades---- to sit in such a class is to experience a lack of space for learning. But to study with a teacher who not only speaks but also listens, who not only gives answers but asks questions and welcomes our insights, who provides information and theories that do not close doors but open new ones, who encourages students to help each other learn---- to study with such a teacher is to know the power of a learning space.

A learning space has three dimensions : openness, boundaries and an air of hospitality. To create open

learning space is to remove the impediments to learning that we find around and within us; we often create them ourselves to evade the challenge of truth and transformation. One source of such impediments is our fear of appearing ignorant to others or to ourselves. The openness of a space is created by the firmness of its boundaries. A learning space cannot extend indefinitely; if it did, it would not be a structure for learning but an invitation for confusion and chaos. When space boundaries are violated, the quality of space suffers. The teacher who wants to create an open learning space must define and defend its boundaries with care, because the pursuit of truth can often be painful and discomforting, the learning space must be hospitable. Hospitality means receiving each other, our struggles our new-born ideas with openness and care. It means creating an ethos in which the community of truth can form and the pain of its transformation be

borne. A learning space needs to be hospitable not to make learning painless, but to make painful things possible, things without which no learning can occur---- things like exposing ignorance, testing tentative hypotheses, challenging false or partial information, and mutual criticism of thought.

The task of creating learning space with qualities of openness, boundaries and hospitality can be approached at several levels. The most basic level is the physical arrangement of the classroom. Consider the traditional classroom setting with row upon row of chairs facing the lectern where learning space is confined to the narrow alley of attention between each student and teacher. In the space, there is no community of truth, hospitality or room for students to relate to the thoughts of each other. Contrast it with the chairs placed in a circular arrangement, creating an open space within which learners can interconnect. At another

level, the teacher can create conceptual space----with words, in two ways. One is through assigned; the other is through lecturing. Assigned reading, not in the form of speed reading several hundred pages, but contemplative reading which opens, not fills, our learning space. A teacher can also create a learning space by means of lectures. By providing critical information and a framework of interpretation, a lecturer can lay down the boundaries within which learning occurs.

We also create learning space through the kind of speech we utter and the silence from which true speech emanates. Speech is a precious gift and a vital tool, but too often our speaking is an evasion of truth, a way of buttressing our self-serving reconstructions of reality. Silence must therefore be an integral part of learning space. In silence, more than in arguments, our mind-made world falls away and must also create emotional space in

the classroom, space that allow feeling to arise and be dealt with because submerged feelings can undermine learning. In an emotionally honest learning space, one created by a teacher who does not fear dealing with feelings, the community of truth can flourish between us and we can flourish in it.

1. Which of the following statements best describes the author's conception of learning space ?

   (a) Where the teacher is friendly.

   (b) Where there is no grim competition for grades.

   (c) Where the students are encouraged to learn about space.

   (d) Where the teacher provides information and theories which open new doors and encourages students to help each other learn.

2. The statements 'The openness of a space is created by the firmness of its boundaries' appears contradictory. Which of the following statements provides the best justification for the proposition ?

   (a) We cannot have a space without boundaries.

   (b) Bounded space is highly structured.

   (c) When space boundaries are violated, the quality of space suffers.

   (d) A teacher can effectively defend a learning space without boundaries.

3. According to the author, learning is a painful process because :

   (a) It exposes our ignorance.

   (b) Our views and hypotheses are challenged.

   (c) It involves criticizing the views of others.

   (d) Of all of the above reasons.

4. The task of creating learning space with qualities of openness, boundaries and hospitality is multidimensional. It involves operating at :

   (a) Psychological and conceptual levels.

   (b) Physical, perceptual and behavioral levels.

   (c) Physical, conceptual and emotional levels.

   (d) Conceptual, verbal and sensitive levels.

5. According to the author, silence must be an integral part of learning space because :

   (a) Silence helps to unite us with others to a community of truth.

   (b) Silent contemplation prepares us to construct our mind-made world.

   (c) Speaking is too often an exercise in the evasion of truth.

   (d) Speaking is too often a way of buttressing our self-serving reconstruction of reality.

6. According to the author, an effective teacher does not allow :

   (a) Feelings to arise within the learning space.

   (b) Silence to become an integral part of the learning space.

   (c) Learning space to be filled by speed reading of several hundred pages of assigned reading.

   (d) Violation of learning space boundaries.

7. Understanding the notion of space in our relations with others is :

   (a) To acknowledge the beauty of poetic metaphor.

   (b) Exclusively rooted in our experiences of physical space.

   (c) To accept a spiritual dimension in our dealings with our peers.

   (d) To extend the parallel of physical space to our experiences in daily life.

8. Another way of describing the author's notion of learning space can be summarized in the following manner :

   (a) It is vital that learning be accompanied by unlearning.

   (b) Learning encompasses such elements as courage, dignity and endeavor.

   (c) An effective teacher recognizes the value of empathy.

   (d) Encourage good learners, discourage indifferent ones.

9. Conceptual space with words can be created by :

   (a) Assigned reading and lecturing.

   (b) Speed reading and written comprehension.

   (c) Gentle persuasion and deliberate action.

   (d) Creative extrapolation and illustrations.

10. An emotionally honest learning space can only be created by :

(a) A teacher committed to join the community.

(b) A teacher who is not afraid of confronting feelings.

(c) A teacher who takes care not to undermine the learning process.

(d) A teacher who worships critical silence.

Directions (Q. Nos. 11-16) Each sentence below has two blanks, each blank indicating a missing word. Choose the option that best fits the blank in the context of the whole sentence.

11. Even the most integrated teenager, of whatever personality type, may occasionally be so .... by stress that he or she .... bouts of low self-esteem.

(a) involved, endures

(b) overwhelmed, experiences

(c) engulfed, wallow

(d) immersed, undergoes

12. Nothing proves our .... for habit more conclusively than the significance we attach to .... of etiquette.

(a) contempt, worth

(b) reverence, trifles

(c) honour, relevance

(d) homage, hollowness

13. People .... modern doctors for .... too many medicines for trivial complaints.

(a) comment, advising

(b) review, proposing

(c) criticize, prescribing

(d) examine, suggesting

14. Though he claimed that the business was ...., his irritability .... that claim.

(a) sound, belied

(b) expanding, supported

(c) downsizing, vindicated

(d) booming, affirmed

15. The ensuing courtship was an unusual one for Henry, in that he made no attempt to .... Victoria to ....

(a) compel, temerity

(b) coerce, infringement

(c) persuade, compliance

(d) exhort, obedience

16. Human reaction to the realm of thought is often as strong as that to sensible presences; our higher moral life is based on the fact that .... sensations actually present may have a weaker influence on our action than do ideas of .... facts.

(a) emotional, impersonal

(b) familiar, symbolic

(c) disturbing, ordinary

(d) material, remote

Directions (Q. Nos. 17-22) : For each of the words below, a contextual usage is provided. Pick the word from the alternatives that is most inappropriate in the given context.

17. **AMAZON :** The press portrayed Mrs. Indira Gandhi as some sort of amazon after she became the Prime Minister and effected the emergency.

(a) Warrior

(b) Hoyden

(c) Tomboyish

(d) Prototype

18. **ANIMADVERT** : When the technician came to service the machinery, the personnel animadverted and expressed their pleasure.

(a) Criticized

(b) Bland

(c) Censured

(d) Rebuked

19. **QUIESCENCE** : After a hectic city life, he sought the quiescence of pastoral surroundings.

(a) Serenity

(b) Tranquility

(c) Bedlam

(d) Placate

20. **SARDONIC** : His words often had a bitter, sardonic edge to them; and it kept him away from the rest of the company.

(a) ironic

(b) derisive

(c) mild

(d) sarcastic

21. **TEMERARIOUS** : The candidate was found unsuitable for the company on the ground that he was extremely temerarious.

(a) Rash

(b) Audacious

(c) Circumspect

(d) Reckless

22. **UNCOUTH** : The porters shouted to each other in uncouth tones.

(a) Boorish.

(b) Churlish

(c) Genteel

(d) Ungallant

Directions (Q. Nos. 23-32) : The following questions have one sentence each which is divided in parts labelled (a) to (d). Choose answer (a), (b) or (c) if there is any error in that part, or else choose (d) if there is no error in the sentence.

23. People are generally trained (a)/ in a single skill, but to be successful (b)/ at the work-place, more than one proficiency are needed. (c) / No error (d)

24. Stonecraft, one of India's few (a)/ home-grown company, was set up in 1992 (b)/ and it introduced a new fashionable travel brand. (c)/ No error (d)

P. T. O.

25. Despite of a large choice (a)! at the breakfast, (b)/ he just ate fruits. (c)/ No error (d)

26. When the awards were being announced at The Hague, (a)/ Dr. Spock, accompanied by his (b)/ research team members, were digging a new-found archaeological site. (c)/ No error (d)

27. Dr. Zhivago's mastery at decoding (a)/ the most complex of the programme codes (b)/ make him one of the most sought after IT experts at the Scotland Yard. (c)/ No error (d)

28. The chairman and the managing director says (a)/ that in face of a slowing economy, (b)/the company may not make any profits. (c)/No error (d)

29. Tanu, together with her sister (a)/ and brothers, are going to spent the entire summer with their (b)/ grandmother at Nainital. (c)/ No error (d)

30. Our team played better than them (a)/ but luck favoured them (b)/with more goals. (c)/No error (d)

31. Amit hurried back (a)/ from the office, but when (b)/ he reached home, he found his friends have left. (c)/ No error (d)

32. The Jury has(a)/ decided to reserve their (b)/ verdict until the next hearing (c)/No error (d)

Directions (Q. Nos. 33-35) : In each of the questions, a sentence is given which has an underlined part. Select the best replacement for the underlined phrase from the given options.

33. While the NDA government is commitment on bringing back black money, from abroad, there are people in the country who are trying to send their ill-gotten money outside for fear of being caught by law enforcement agencies.

  (a) While the NDA government is commitment on bringing back 'black money' from abroad.

  (b) While the NDA government is committed to bringing back 'black money' from foreign.

(c) Despite the NDA government is committed to bringing back 'black money' from abroad.

(d) As the NDA government is committed to bringing back 'black money' from abroad.

34. They emphasise that any CHRO who aspires to become a CEO must demonstrate capabilities in a host of <u>skills required for top leaders.</u>

(a) Skills required for top leaders.

(b) Skills required with top leaders.

(c) Skills required as that of top leaders.

(d) Skills required of top leaders.

35. <u>Many managers are of the view that university grades are worthless as a criterion for hiring fresh graduates, since grades are not reliable in predicting long-term performance of the recruits.</u>

(a) are of the view that university grades are worthless as a criterion for hiring fresh graduates.

(b) are of the view that university grade is worthless as a criteria for hiring fresh graduates.

(c) are of the view that university grades are worthless as a criteria for hiring fresh graduates.

(d) are of the view that university grades as a criteria are worthless in hiring fresh graduates.

Directions (Q. Nos. 36-40) : Identify the part which has an error and mark that as your answer. In case of no error select option (d) as your response.

36. (a) By may next year

(b) I have been working

(c) in this college for twenty years.

(d) No error

37. (a) I have visited Paris

(b) two years ago and

(c) I am planning to visit again in the near future.

(d) No error

38. (a) It was only when they met

    (b) that they found

    (c) he has a childish simplicity about him.

    (d) No error

39. (a) We finished our work

    (b) three hours ago and

    (c) have been waiting for you since then.

    (d) No error

40. (a) We had to return

    (b) because when we reached

    (c) the railway station the train left.

    (d) No error

Directions (Q. Nos. 41-50) : On the basis of your reading of the given paragraphs, identify the appropriate tone.

41. There is no one that can be better
    Because you are brilliant.
    There is nothing that you cannot do.
    Because you are unbeatable.

    (a) Adulatory

    (b) Cynical

    (c) Motivational

    (d) Negative

42. Botulism, a type of rare, severe food poisoning, has been reported recently in New Jersey. It is believed that the victim, who is in critical condition at a local hospital, was stricken after eating from a jar of incorrectly preserved homegrown green beans.

    (a) Pessimistic

    (b) Condescending

    (c) Tragic

    (d) Optimistic

43. The kind of nuclear reaction that happens inside a nuclear reactor is called nuclear fission. The fuel is uranium or plutonium, two very heavy elements which have many protons and neutrons in their nuclei. Fission starts when a fast moving neutron strikes a nucleus. The nucleus cannot take in the extra neutron, and the whole nucleus breaks apart into two smaller nuclei.

    (a) Uncertain

    (b) Apprehensive

    (c) Factual

    (d) Subjective

44. "I am not mad," [the monster] cried energetically, "The sun and the heavens, who have viewed my operations, can bear witness of my truth. I am the assassin of those most innocent victims; they died by my machinations, A thousand times would I have shed my own blood, drop by drop, to have saved their lives; but I could not, my father, indeed I could not sacrifice the whole human race."

  (a) Remorseful

  (b) Vindictive

  (c) Humorous

  (d) Vitriolic

45. "Afterwards we will be as one animal of the forest and be so close that neither one can tell that one of us is one and not the other. Can you not feel my heart be your heart ?" whispered Nick.

  (a) Sentimental

  (b) Playful

  (c) Scornful

  (d) Contemptuous

46. As that hurricane threatened, the wind's blast caused angry fifteen-foot waves to crash over the small houses near the shore.

  (a) Calm

  (b) Incendiary

  (c) Scary

  (d) Critical

47. The alarm buzzed. Jordan smashed her fist down on it .... hard. It flew off the night stand and bounced off her cat, Armstrong. The cat yowled indignantly and rocketed out of the room.

  (a) Sarcastic

  (b) Passionate

  (c) Humorous

  (d) Excited

48. This place may be shabby, but since both of my children were born while we lived here, it has a special place in my heart.

    (a) Energetic

    (b) Euphoric

    (c) Cheerful

    (d) Sentimental

49. Iguacu Falls, which sit on the border between Argentina and Brazil, are said to make Niagara look like a leaky faucet. The great cataracts stretch for two and a half miles across lushly foliaged rocky outcroppings before plunging a staggering two hundred and thirty feet into the river below.

    The falls region is densely forested, and is home to a wide variety of plants and animals, including a number of endangered ones. It is a paradise where parrots dive and swoop through the spray, butterflies cavort among the tropical plants and coatis, and giant otters and anteaters

amble through the trees. The foliage itself varies between tropical and deciduous with orchids blushing in the shade of pines and ferns nodding gracefully in the shadow of fruit trees.

The author's attitude toward Iguacu Falls can best be described as which of the following ?

    (a) Overweening pride

    (b) Positive appreciation

    (c) Mild acceptance

    (d) Apathetic objectivity

50. Tony's Place is crammed into a tiny building next to the Fine Arts Theatre. The owners offer a menu of Italian food. They've got the checkered table clothes, dim lights, and crusty bread. They also know how to make a hearty red sauce. Too bad they use it to drown delicate fish. They also seem to lace everything with truckloads of garlic. The service needs some work, too. Our waiter didn't know what the specials were. Nor did he think to refill our

water glasses before we asked. With a combination of fake-friendly chatter and outright nagging, he made us order, finish up, and clear out. He seemed to see us only as automatic tip machines. The food and low prices bring the customers in the door. The service should not push them out. The tone of the passage is :

(a) sad

(b) plain and factual

(c) boastful

(d) critical, or finds fault

51. Five students are to be arranged on five chairs for a photograph. Three of these are girls and the rest are boys. Find out the total number of ways in which three girls are together :

(a) 24

(b) 36

(c) 48

(d) 125

52. Using all the letters of the word 'LINEAR'. How many different words can be formed that start and end with vowel ?

(a) 144

(b) 136

(c) 148

(d) 225

53. A committee is to be formed comprising of 7 members such that there is a majority of men and at least 1 woman in every committee. The shortlist consists of 9 men and 6 women. In how many ways can this be done ?

(a) 3724

(b) 3630

(c) 3526

(d) 4914

54. Two out of six paper sets for an examination are of Mathematics. What is the number of ways in which the papers can be set so that the two Mathematics papers are not together ?

(a) 480

(b) 520

(c) 492

(d) 512

55. How many words can be formed out of the letters of the word 'article' so that the vowels occupy the even places ?

   (a) 72

   (b) 144

   (c) 288

   (d) 36

56. A delegation of 6 members is to be sent abroad out of the 12 members. In how many ways can the selection be made so that a particular member is included ?

   (a) 376

   (b) 424

   (c) 448

   (d) 462

57. In a class of students, there are 6 boys and 4 girls. In how many ways can they be seated, around a table so that all the 4 girls sit together ?

   (a) $6! \times 5!$

   (b) $2 \times 6! \times 4!$

   (c) $5! \times 4!$

   (d) $6! \times 4!$

58. In how many ways can three prizes be given away to 5 students when each student is eligible for all the prizes ?

   (a) 243

   (b) 5C3

   (c) 5P3

   (d) 125

59. In an exam paper 1st section contains 10 questions each with 5 choices and the second section contains 5 questions each with 4 choices. In how many different ways can the paper be answered if all the questions are attempted ?

   (a) $10^5 \times 4^5$

   (b) $5^{10} \times 4^5$

   (c) 500×40

   (d) 105×54

60. Two coins are tossed. What is the probability of the appearance of at most one head ?

   (a) 1/2

   (b) 1/3

   (c) 2/3

   (d) 3/4

61. A positive number is selected at random and is divided by 8. Find the probability that the remainder is not 1 :

   (a) 3/4

   (b) 1/4

   (c) 7/8

   (d) 5/8

62. The probability of hitting a target by Aman is 4/5 and by Rohit is 3/4 and Sohit is 2/3.   Find the probability that none of them will hit the target :

   (a) 1/60

   (b) 3/5

   (c) 1/12

   (d) 2/3

63. A box contains 25 articles out of which 5 are defective. 3 articles are to be delivered to a customer. What is the probability that he get one defective article ?

   (a) 19/46

   (b) 25/55

   (c) 44/77

   (d) 22/46

64. A bag contains 13 yellow and 7 blue balls. Two balls are chosen at random, what is the probability that they are of the same colour ?

   (a) 42/95

   (b) 36/95

   (c) 52/95

   (d) 99/190

65. A man takes the first 50 km at 25 kmph, the next 40 km at 20 kmph, and 90 km at 15 kmph. His average speed for the whole journey in kmph :

   (a) 18

   (b) 20

   (c) 25

   (d) 32

66. Raman walks from his house at 5 kmph and reaches his office 10 min. late. If the speed had been 6 kmph he would have reached 15 min. early. The distance of his office from his house :

(a) 10 km

(b) 12 km

(c) 12.5 km

(d) 15 km

67. Deepak goes to the school at the speed of 3 kmph and returns at the speed of 2 kmph. If he takes 10 hours in all, then the distance between the village and the school is :

(a) 15 km

(b) 16 km

(c) 17 km

(d) 12 km

68. In a km race, P beats Q by 100 m and Q beats R by 200 m. By how many metres does P beat R in the same race ?

(a) 280 m

(b) 300 m

(c) 301 m

(d) 250 m

69. A passenger train 150 m long is travelling at a speed of 30 km/h. If a man is cycling in the direction of train at 3 km/h, the time taken by the train to pass the man is :

(a) 10 sec

(b) 15 sec

(c) 18 sec

(d) 20 sec

70. P and Q start simultaneously from two different places and proceed towards each other at a speed of 20 km/h and 30 km/h respectively. By the time they meet each other. Q has covered 36 km more than that of P. The distance (in km) between the two places is :

(a) 144

(b) 162

(c) 180

(d) 108

71. On a river, Q is the mid-point between two points P and R on the same bank of the river. A boat can go from P to Q and back in 12 h and from P to R in 16 h 40 min. How long would it take to go from R to P ?

    (a) 4 h

    (b) 4.33 h

    (c) 3.5 h

    (d) 7.33 h

72. Rahul rows a boat against a stream flowing at 2 kmph for 9 km and then turns around and rows back with the current. If the whole trip last 6 h, find his rowing speed in still water :

    (a) 4 kmph

    (b) 5 kmph

    (c) 6 kmph

    (d) 8 kmph

73. If A can do 1/4 of a work in 3 days and B can do 1/6 of the same work in 4 days, how much will A get if both work together and are paid ₹ 180 in all ?

    (a) ₹ 80

    (b) ₹ 160

    (c) ₹ 150

    (d) ₹ 120

74. 12 men complete a work in 9 days. After they worked for 6 days, 6 more men joined, then how many days are required to complete the remaining work ?

    (a) 2

    (b) 3

    (c) 4

    (d) 0

75. Golu and Monu can do a piece of work in 18 days and 14 days. Golu started the work alone, after 3 days Monu joined till the

completion of the work. How long did the work last (approx.) ?

(a) 10

(b) 5

(c) 7

(d) 8

76. P, Q and R can alone complete a work in 10, 12 and 15 days respectively. All started the work but Q left the work 3 days before completion. How long did the work last ?

(a) 4

(b) 5

(c) 8

(d) 3/5

77. Two taps can separately fill the tank in 18 min. and 12 min. respectively and when the leakage pipe is open, they can together fill the tank in 9 minutes. The leakage pipe can empty the full tank in :

(a) 26 min.

(b) 36 min.

(c) 46 min.

(d) 32 min.

78. A pipe can fill a tank in 6hrs. After half the tank is filled, three more similar pipes are opened. What is the total time taken to fill the tank completely ?

(a) 3 hrs.

(b) 3 hrs. 45 min.

(c) 4 hrs. 45 min.

(d) 4 hrs.

79. Three taps J, K and L can fill a tank in 12, 15 and 20 minutes respectively. If tap J is opened all the time and pipes K and L are opened for one hour alternatively. The tank will be full in (approx.) :

(a) 8 hr.

(b) 4 hr.

(c) 6 hr.

(d) 5 hr.

80. Taps X and Y can fill a tank in 5 and 3 hrs. respectively and tap Z can empty it in 15 h. When the tank is half full then all the three pipes are opened simultaneously. After how much time the tank will be full ?

    (a) 1 (4/15) hrs.

    (b) 1 (1/11) hrs.

    (c) 1 (1/14) hrs.

    (d) 1 (3/11) hrs.

81. 180 sweets are divided among four friends P, Q, R and S such that sweets divided between P and Q are in the ratio 2 : 3, between Q and R in the ratio 2 : 5, and between R and S in the ratio 3 : 4. What is the number of sweets received by P and S together ?

    (a) 78

    (b) 84

    (c) 96

    (d) 120

82. The incomes of Sam and David are in the ratio 1 : 2 and their expenditures are in the ratio 2 : 5. If Sam saves ₹ 20,000 and David saves ₹ 35,000, what is the income of David ?

    (a) ₹ 40,000

    (b) ₹ 62,000

    (c) ₹ 90,000

    (d) ₹ 60,000

83. A college has 4 sections of class MBA, such that half the number of students in 1st section, 1/3rd of 2nd section, 1/4th of 3rd section, and 1/5th of the 4th section are equal. If the total number of students in MBA is 840, then find the total number of students in sections 1st and 2nd :

    (a) 300

    (b) 135

    (c) 256

    (d) 180

84. A trader has a sum of ₹ 315 consisting of 25 paise, 50 paise, and ₹ 1 coins in the ratio 3 : 4 : 6. What is the total number of coins ?

   (a) 468

   (b) 220

   (c) 350

   (d) 165

85. The number of workers in a company is 6 : 5. If 20% of men and 45% of women come by bus to the company, what percentage of workers opt for transport other than bus to come to the company ?

   (a) 68 7/11%

   (b) 70 5/11%

   (c) 56 8/11%

   (d) 73 5/11%

86. Section A and Section B of 7th class in a school contain total of 570 students. Which of the following can be the ratio of the number of boys and the number of girls in the class ?

   (a) 6 : 5

   (b) 10 : 9

   (c) 11 : 9

   (d) 13 : 12

87. There are two numbers. When 25% of the first number is added to the second number, the resultant number is 1.5 times the first number. What is the ratio of 1st number to the 2nd number ?

   (a) 3 : 2

   (b) 5 : 3

   (c) 4 : 5

   (d) 5 : 2

88. Weight is directly proportional to age and directly proportional to height. When age = 6 year and height = 2 feet and weight = 24 kg. Find the value of weight when age = 8 years and height = 3 feet :

   (a) 48 kg

   (b) 36 kg

   (c) 42 kg

   (.) 34 kg

89. How many litres of freshwater should be mixed with 25 litres of 50% milk solution so that resultant solution is a 10% milk solution ?

(a) 80

(b) 100

(c) 115

(d) 125

90. Milk and water are mixed in a vessel A in the proportion 5 : 2, and in vessel B in the proportion 8 : 5. Should the quantities be taken from the two vessels to form a mixture in which milk and water will be in the proportion of 9 : 4 ?

(a) 2 : 5

(b) 5 : 2

(c) 7 : 2

(d) 5 : 3

91. 10 kg of rice priced at ₹ 12 per kg is mixed with 6 kg of rice priced at ₹ 16 per kg. What is the average price of the whole mixture ?

(a) ₹ 13.50

(b) ₹ 13.80

(c) ₹ 12.50

(d) ₹ 12.75

92. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5 ?

(a) 1/3

(b) 9/20

(c) 1/2

(d) 2/3

93. In a box, there are 8 red, 7 blue and 6 green balls. One ball is picked up randomly. What is the probability that it is neither red nor green ?

(a) 1/2

(b) 1/3

(c) 1/4

(d) 2/3

Directions (Q. Nos. 94-95) : In a class of 40 students, 12 enrolled for both English and German. 22 enrolled for German.

94. If the students of the class enrolled for at least one of the two subjects, then how many students enrolled for only English and not German ?

(a) 10

(b) 6

(c) 18

(d) 28

95. If two students of the class are not enrolled in any of the two subjects, then how many students are enrolled only in one subject ?

(a) 20

(b) 16

(c) 28

(d) 26

96. Today is Monday. After 61 days, it will be :

(a) Wednesday

(b) Saturday

(c) Tuesday

(d) Thursday

97. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon ?

(a) 144°

(b) 150°

(c) 168°

(d) 180°

98. Two pipes can fill a tank in 15 hours and 20 hours respectively, while the third pipes can empty it in 30 hours. If all the pipes are opened simultaneously, the empty tank will be filled in :

(a) 10 hours

(b) 12 hours

(c) 15 hours

(d) 15.5 hours