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B.Tech. DEGREE EXAMINATION, JUNE – 2023

18PDH201T – EMPLOYABILITY SKILLS AND PRACTICES

(For the Candidates Admitted during the Academic Year : 2021–2022)

Time : Two Hrs.   Max. Marks : 100

Name of the Candidate : _____

Register Number :

Signature of the Candidate : _____

SEAL

INSTRUCTIONS TO THE CANDIDATE

1. The Question Booklet contains 80 Questions.

2. **ANSWER ALL** the questions. **This paper contains TWO parts.**

3. **CALCULATORS OR ANY OTHER MATHEMATICAL DEVICES ARE NOT ALLOWED.**

4. Write your **NAME, REGISTER NUMBER** and put your **SIGNATURE** in the places specified on the first page of this Question Booklet.

5. Do not open this Question Booklet until the Hall Superintendent signals the commencement of the examination.

6. Check whether the Answer Sheet and the Question Booklet are in good condition. If not, before writing anything on the Answer Sheet, ask for the replacement of the Question Booklet/Answer Sheet.

7. Write and shade your **REGISTER NUMBER,** in the specified place in the **OMR** coding sheet.

8. Write and shade the question paper version code in the specified place in the **OMR** coding sheet.

9. Answer should be shaded with **BLUE** or **BLACK BALL PEN** in the coding sheet.

10. All instructions given in the **OMR** coding sheet should be strictly followed.

11. Use Answer Sheet carefully. No spare Answer Sheet will be given.

12. The answer should be given only in the Answer Sheet.

13. The last few pages of the Question Booklet are blank, except for the words 'Rough Work'. You can use them for any rough calculations.

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Note : (i)   Questions 1 to 10 carries 2 marks each.

       (ii)   Questions 11 to 40 carries 1 mark each.

1. Find the highest power of 7 in 150!

    (A) 26   (B) 21

    (C) 24   (D) 25

2. Find the remainder when 1234567891011......99100 is divided by 4?

    (A) 3   (B) 0

    (C) 2   (D) 1

3. Find x if $\log_5 (x-7) = 1$

    (A) 10   (B) 15

    (C) 12   (D) 18

4. The compound interest on ₹ 30,000 at 12% per annum is ₹ 7,632. The period (in years) is :

    (A) 2.5 years   (B) 2 years

    (C) 3 years   (D) 3.5 years

5. The calendar for the year 2015 will be the same for the year

    (A) 2019   (B) 2022

    (C) 2026   (D) 2027

6. A gets 92% marks in an examination. If he scores 460 marks, find the maximum marks

    (A) 400   (B) 500

    (C) 600   (D) 300

7. The angle between the minute hand and the hour hand of a clock when the time is 10 : 00

    (A) 90°   (B) 45°

    (C) 60°   (D) 120°

8. An alloy contains 25% of copper. What quantity of alloy is required to get 500 gms of copper?

   (A) 1000 gms   (B) 1500 gms

   (C) 2500 gms   (D) 2000 gms

9. If $\log 2 = 0.3010$, then find the number of digits in 2^{60}

   (A) 18   (B) 12

   (C) 19   (D) 20

10. The unit digit in the sum of $(124)^{62} + (124)^{23}$ is

    (A) 8   (B) 4

    (C) 2   (D) 0

11. The least perfect square number which is divisible by 3, 4, 6 and 8 is

    (A) 900   (B) 3600

    (C) 2500   (D) 4900

12. What is the number of trailing zeros in 200!?

    (A) 49   (B) 50

    (C) 51   (D) 55

13. A person spends 20% of his salary on house rent, 10% for household expenses. He is left with ₹ 7,000. Find his salary.

    (A) ₹ 12,000   (B) ₹ 10,000

    (C) ₹ 15,000   (D) ₹ 9,000

14. A man's wages were decreased by 50%. Again, the reduced wages were increased by 50%. He had a loss of?

    (A) 35%   (B) 50%

    (C) No loss   (D) 25%

15. If the cost price of 15 articles is equal to the selling price of 10 articles, what is the net profit or loss percent?

    (A) 25%   (B) 20%

    (C) 50%   (D) 33%

16. Find the single discount percentage equivalent to two successive discounts of 10% and 20%.

    (A) 27%   (B) 25%
    (C) 30%   (D) 28%

17. **A** can complete a work in 10 days and **B** does the same in 15 days. How long both would take to complete the work?

    (A) 8   (B) 10
    (C) 6   (D) 4

18. **A** completed the project in 10 days. If **B** is 25% more efficient than **A**, how many days will it take to complete the same project?

    (A) 16   (B) 8
    (C) 10   (D) 12

19. Rishi is driving at 50 kmph while Siva is driving at 75 kmph. Find the time taken by Siva to travel the same distance which Rishi takes 12 hrs.

    (A) 6 hrs.   (B) 10 hrs.
    (C) 15 hrs.   (D) 8 hrs.

20. Prakash goes from P to Q at a speed of 40 kmph and comes back to P at a speed of 60 kmph. Find his average speed for the entire journey.

    (A) 56.5   (B) 50
    (C) 48   (D) 47.5

21. **A** can row upstream at 16 kmph and downstream at 26 kmph. What is the speed of the stream?

    (A) 10 kmph   (B) 5 kmph
    (C) 7 kmph   (D) 6 kmph

22. In what ratio should a grocer mix two varieties of rice, one costing ₹ 57 per kg and another costing ₹ 65 per kg to get a rice variety costing ₹ 60 per kg.

    (A) 5 : 3   (B) 5 : 2
    (C) 5 : 1   (D) 5 : 4

23. The shares of A, B and C are in the ratio 3 : 2 : 5. How much money will C get out of ₹ 1,200?

    (A) 252   (B) 350
    (C) 630   (D) 600

24. If $A:B = 1:2$, $B:C = 2:3$. Find $A:B:C$.

(A) $2:3:1$ (B) $2:1:3$

(C) $1:2:3$ (D) $3:1:2$

25. From a point 215 metres away from the foot of a building, the top of the building is observed at an angle of elevation of 45°, then the height (in mts.) of the building is

(A) $\sqrt{215}$ m   (B) 215 m

(C) $215\sqrt{2}$ m   (D) 200 m

26. A wheel makes 500 revolutions in covering a distance of 22 kms. Find the radius of the wheel.

(A) 5 m   (B) 5.5 m

(C) 7 m   (D) 6 m

27. In a 30-60-90 triangle, the length of the hypotenuse is 6. What is the length of the shortest side?

(A) 2   (B) 3

(C) $3\sqrt{3}$ (D) $3\sqrt{2}$

28. In a group of 100 people, 72 like reading books, 52 like browsing and each person likes atleast one of the two. How many like both reading books and browsing?

(A) 20   (B) 28

(C) 24   (D) 22

29. There are 10 points in a plane. How many straight lines can be formed?

(A) 20   (B) 19

(C) 10   (D) 45

30. Find the probability of choosing a Queen card from the pack of 52 cards.

(A) $\dfrac{1}{13}$ (B) $\dfrac{4}{13}$

(C) $\dfrac{2}{13}$ (D) $\dfrac{3}{13}$

Direction for Q.No. 31 to 35 : Each question is followed by two Statements I and II. Indicate your responses based on the following directives :

(A)   If the question can be answered using one of the statement alone, but cannot be answered using the other statement.

(B)   If the question can be answered using either statement alone.

(C)   If the questions can be answered using I and II together but not using I (or) II alone

(D)   If the question cannot be answered even using I and II together.

31.   What is the value of y?

I. $y - 3 = 2$

II. $y^2 = 25$

32.   What is Ram's rank in the class?

I.   There are 26 students in the class.

II.   There are 9 students who have scored less than Ram.

33.   What is the area of a rectangle?

I.   Length of the rectangle is 10 cm.

II.   Breadth of the rectangle is 5 cm.

34.   What percentage of matches are won by P ?

I. P played 11 and drawn in 2

II. P played 11 and lost 4

35.   What is the monthly income of Rahul?

I.   Rahul spends 80% of his income.

II.   Monthly savings of Rahul is ₹ 5,000.

Directions for Q.No. 36 to 40 : Study the following information and answer the related questions :

$P, Q, R, S, T, A, B, C, D, E$ are employees of a Company. A table shows the average age of any two employees of the company. The average age of A and B is 27.5.

Employees	P	Q	R	S	T
A	39.5				27
B	42		25.5		
C		42			
D			36.5	42.5	
E		44.5			36

i.e., average age of A & P is given as $\dfrac{(A+P)}{2} = 39.5$

36. What is the age of T ?

(A) 27

(B) 29

(C) 33

(D) 39

37. What is the average of D, R and S ?

(A) 35.33

(B) 31

(C) 32

(D) 35.6

38. What is the ratio of the ages of Q and E ?

(A) 46 : 43

(B) 43 : 46

(C) 23 : 25

(D) 25 : 23

39. What will be the average of sum of ages of A, B, C, D and E together after five years?

(A) 39.8

(B) 40

(C) 42.6

(D) 45.5

40. If the age of P and Q is decreased by 50% and the age of A and B is increased by 20%, what will be the ratio of ages of P, Q, R, S and T together to the ages of A, B, C, D and E together?

(A) 51 : 50

(B) 50 : 51

(C) 199 : 133

(D) 133 : 199

Note : (i)   Questions 41 to 50 carries 2 marks each.

(ii)   Questions 51 to 80 carries 1 mark each.

Read the argument and answer the question that follows :

41.   In many hospitals, more and more monitoring is being carried out by automated equipments instead of human employees who previously carried out the work. This is done in an attempt to save hospital expenses. However, many employees who lose their jobs to automation will need Government assistance to get by and the same corporations that are laying people off will eventually pay for that assistance through increased taxes and unemployment insurance payments.

Which of the following, if true, most strengthens the author's argument?

(A)   Most of the new jobs created by automated equipments pay less than the jobs that were eliminated by automated equipments did.

(B)   Many hospitals that have failed to automate have seen their profits decline.

(C)   Many workers who have already lost their jobs to automated equipments have been unable to find new employment

(D)   Unemployment insurance and taxes are paid also by corporations that are not automating

42.   The local university recently hired a new soccer coach. Although she has several years worth of coaching experience and is a diligent student of the game, she was never a member of a collegiate soccer team. For this reason, the new coach will be unable to build a successful program.

The argument above is based on which of the following assumptions?

(A)   The local university should have hired a former collegiate soccer player as its new coach

(B)   Coaching experience is one of the most crucial factors for coaching success

(C)   The previous coach at the university was dismissed due to her lack of success

(D)   To build a successful soccer program as coach, one must be a former collegiate soccer player

43. The retail price of decaffeinated coffee is considerably higher than that of regular coffee. However, the process by which coffee beans are decaffeinated is fairly simple and not very costly. Therefore the price difference cannot be accounted for by the greater cost of providing decaffeinated coffee to the consumer.

The argument relies on assuming which one of the following?

(A) Processing regular coffee costs more than does processing decaffeinated coffee

(B) Price differences between products can generally be accounted for by such factors as supply and demand, not by differences in production costs

(C) There is little competition among companies that process decaffeinated coffee

(D) The beans used for producing decaffeinated coffee do not cost much more before processing than the beans used for producing regular coffee

44. A computer equipped with signature recognition software, which restricts access to a computer to those people whose signature are on file, identifies a person's signature by analysing not only the form of the signature but also such characteristics as pen pressure and signing speed. Even the most adept forgers cannot duplicate all of the characteristics the program analysis.

(A) The time it takes to record and analyse a signature makes the software impractical for everyday use

(B) Computers equipped with the software will soon be installed in most banks

(C) Nobody can gain access to a computer equipped with the software solely by virtue of skill at forging signatures

(D) Signature-recognition software has taken many years to develop and perfect

45. Despite the fact that antilock brakes are designed to make driving safer, research suggests that people who drive cars equipped with antilock brakes have more accidents than those who drive cars not equipped with antilock brakes.

Each of the following if true, would help resolve the apparent discrepancy described above EXCEPT :

(A) Most cars equipped with antilock brakes, are, on average, driven more carelessly than cars not equipped with antilock brakes

(B) Antilock brakes malfunction more often than regular brakes

(C) Antilock brakes require expensive specialized maintenance to be even as effective as regular brakes that have not been maintained

(D) Antilock brakes were designed for safety in congested urban driving, but accidents of the most serious nature take place on highways

In each of the following questions, choose the best way of writing the sentence for the underlined part of sentence :

46. <u>Completing the physical examination, the tonsils were found to be diseased</u>.

(A) Completing the physical examination, the tonsils

(B) Having completed the physical examination, the tonsils

(C) When the physical examination was completed, the tonsils

(D) The physical examination completed, the tonsils

47. Current economic conditions demand <u>that we not only cut jobs and prices but also</u> reduce the rate of interest on PF deposits.

(A) That we not only cut jobs and prices but also

(B) not only cutting job and prices but also to

(C) not only to cut jobs and prices but also

(D) not only a cut in jobs and prices but also to

48. Aamir was sitting with his friends when the Premier, <u>in accompaniment with his social secretary</u>, entered the garden.

    (A) in accompaniment with his only social secretary

    (B) accompanying only by his social secretary

    (C) accompanied only by his social secretary

    (D) only accompanied by his social secretary

49. <u>In the attempt to destroy them with completeness</u>, the Indian team has launched a coordinated attack on the opposing team.

    (A) In the attempt to destroy them with completeness

    (B) In attempting to destroy them completely

    (C) In an attempt to destroy them completely

    (D) In the attempt of destroying them completely

50. Many middle-class South Asians find that they cannot obtain good medical attention, despite the fact <u>they need it badly</u>.

    (A) than, we have seen

    (B) from what we have seen

    (C) from what we seen

    (D) so as to excellently provide shade in summer, and shelter in winter

Choose the synonym of the underlined word :

51. The youth managed to drive his car safely home inspite of his <u>inebriate</u> state.

    (A) Dreamy   (B) Stupefied

    (C) Unsteady   (D) Drunken

52. They accepted the offer with <u>alacrity</u>.

    (A) dullness   (B) enthusiasm

    (C) audacity   (D) apathy

53. Even <u>erudite</u> people found this puzzle to be difficult.

    (A) research   (B) scholarly

    (C) aforesaid   (D) indigenous

54. There's no hidden agenda to this robust and not terribly subtle tale of <u>duplicity</u>.

    (A) innocence   (B) cleverness

    (C) double dealing   (D) repetition

55. For it is a lazy public which produces a <u>slothful</u> and irresponsible theatre.

    (A) fat   (B) stern

    (C) ignorance   (D) lazy

Choose the antonym of the underlined word :

56. The young leader was <u>reluctant</u> to shoulder the responsibilities of ministerial office.

    (A) wanting   (B) willing

    (C) anxious   (D) reckless

57. It is one of the <u>pernicious</u> customs prevailing in the society.

    (A) permanent   (B) beneficial

    (C) parochial   (D) dangerous

58. The story told by the teacher <u>amused</u> children in the class.

    (A) frightened   (B) jolted

    (C) astonished   (D) saddened

59. Poets often prefer <u>ambiguity</u> to

    (A) clarity   (B) uncertainty

    (C) rationality   (D) perversity

60. In his old age his health became increasingly <u>frail</u>

    (A) Fragile   (B) Frangile

    (C) Sturdy   (D) Hail

Choose the option that best completes the sentence semantically/grammatically :

61. Today's small, portable computers contrast markedly with the earliest electronic computers, which were —————————

(A) effective   (B) useful

(C) destructive   (D) enormous

62. Thomas Paine, whose political writing was often flamboyant, was in private life surprisingly ————————— man : he lived in rented rooms, ate little, and wore drab clothes

(A) simple   (B) controversial

(C) sordid   (D) discourteous

63. Their ————————— of loyalties is first to oneself, next to kin, then to fellow tribe members, and finally compatriots.

(A) merging   (B) hierarchy

(C) definition   (D) judgement

64. I suggested that Priya ————————— walk on and try to get help.

(A) would   (B) can

(C) should   (D) could

65. ————————— we think deserve the award will certainly get it.

(A) whomever   (B) whoever

(C) whichever   (D) whatever

Identify the part of the sentence that contains an error.

66. $\underset{(A)}{\underline{\text{He suggested}}}$ $\underset{(B)}{\underline{\text{that I should}}}$ $\underset{(C)}{\underline{\text{see him}}}$ $\underset{(D)}{\underline{\text{in his letter}}}$

67. $\underset{(A)}{\underline{\text{I am hardly pressed}}}$ $\underset{(B)}{\underline{\text{for time}}}$ $\underset{(C)}{\underline{\text{I cannot}}}$ $\underset{(D)}{\underline{\text{accompany you}}}$

68. $\underset{(A)}{\underline{\text{No sooner the bell rang}}}$ $\underset{(B)}{\underline{\text{than the teacher}}}$ $\underset{(C)}{\underline{\text{entered}}}$ $\underset{(D)}{\underline{\text{the class}}}$

69. $\underset{(A)}{\underline{\text{It was difficult}}}$ $\underset{(B)}{\underline{\text{to persuade Subas to agree}}}$ $\underset{(C)}{\underline{\text{to read the book}}}$ $\underset{(D)}{\underline{\text{to the blindman}}}$

70. $\underset{(A)}{\underline{\text{Neither the speaker}}}$ $\underset{(B)}{\underline{\text{nor his secretary}}}$ $\underset{(C)}{\underline{\text{were informed}}}$ $\underset{(D)}{\underline{\text{of the cancellation}}}$

Choose the pair that is similar in relationship with the question pair :

71. Germ : Disease

   (A) Man : Woman
   (B) War : Destruction
   (C) Doctor : Medicine
   (D) Ownership : Shop

72. Gazelle : Swift

   (A) Horse : slow
   (B) Swan : graceful
   (C) Lion : roar
   (D) Lamb : bleat

73. Spear : Dart

   (A) Knife : Tool
   (B) Door : Window
   (C) Molehill : mountain
   (D) Cannon : Gun

Arrange the sentences to make a meaningful paragraph :

74. (P) However, critics say the scheme is too expensive and question whether the government will be able to support it

    (Q) Under the National Rural Guarantee Scheme, one member from each of India's 60 million rural households is guaranteed 100 days of work each year

    (R) They will receive a minimum wage of 60 rupees ($1.35) or an unemployment allowance if there is no work

    (S) The first phase of the programme will cover 200 of the country's poorest and least developed districts.

    (A) SRPQ   (B) PRQS

    (C) RSQP   (D) QRSP

75. (P) Already the Company has 25 international partners to manufacture and market a host of products ranging from bulk drugs and pharmaceuticals to skin care and cardiac therapy products.

    (Q) This hurry seems to take care of life after 2005, when the product patent regime came into effect.

    (R) And that seems to be the panacea for growth for the ₹ 235 crore Elder Pharmaceuticals.

    (S) The Company is busy entering into alliances as if there is no tomorrow.

    (A) PSQR   (B) SRQP

    (C) PQSR   (D) QSPR

Read the following passage and answer the questions that follow :

Work expands so as to fill the time available for its completion. The general recognition of this fact is shown in the proverbial phrase 'It is the busiest man who has time to spare' Thus an elderly lady at leisure can spend the entire day writing a post card to her niece. An hour will be spent in finding the postcard, another hunting for spectacles, half an hour to search for the address, an hour and a quarter in composition and twenty minutes in deciding whether or not to take an umbrella when going to the pillar box in the street. The total effort that would occupy a busy man for three minutes, all told, may in this fashion leave another person completely exhausted after a day of doubt, anxiety and toil.

76. What happens when the time to be spent on some work increases?

   (A) The work is done smoothly   (B) The work is done leisurely

   (C) The work consumes all the time   (D) The work needs additional time

77. Explain the sentence : 'Work expands so as to fill the time available for its completion'.

   (A) The more work there is to be done, the more the time needed

   (B) Whatever time is available for a given amount of work, all of it will be used

   (C) If you have more time, you can do more work

   (D) If you have some important work to do, you should always have some additional.

78. Who is the person likely to take more time to do work?

   (A) A busy man   (B) A man of leisure

   (C) An elderly person   (D) An exhausted person

79. What is the total time spent by the elderly lady in writing a post card?

   (A) Three minutes   (B) Four hours and five minutes

   (C) Half an hour   (D) A full day

80. What does the expression 'Pillar box' stand for?

   (A) A box attached to the pillar   (B) A box in the pillar

   (C) Box office   (D) A pillar-type post box

ROUGH WORK

A

ROUGH WORK

ROUGH WORK