



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPSC



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

RRB ALP/Technician 2018 CBT 2 Fitter Question Paper (23-Jan-2019) (Shift 1)

Total Time: 2 Hour : 30 Minute

Total Marks: 175

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Sectional Timing
1	Part A	100	100	90 Min
2	Part B	75	75	60 Min

- 1.) A total of 150 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

Your Personal Exams Guide

Part A

1. In a steady-flowing river, a boat goes a certain distance upstream at a speed of 12 km/h and comes back the same distance at 24 km/h. Find the average speed for the total journey. (+1, -0.33)

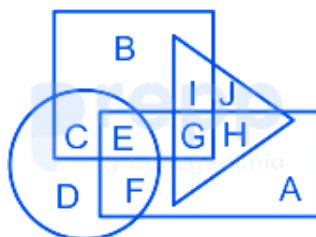
- a. 15 km/h
- b. 16 km/h
- c. 18 km/h
- d. 20 km/h

2. Find the missing number in the given series. (+1, -0.33)

-1.3, -0.8, -0.3, ?, 0.7, 1.2

- a. 0.1
- b. 0.3
- c. 0.4
- d. 0.2

3. In the following figure, the triangle represents actors, the square represents professors, the circle represents Indians and the rectangle represents fathers. Which set of letters represents Indians who are either professors or fathers? (+1, -0.33)



- a. IGH

- b. CEF
- c. E
- d. G

4. The author of 'The Monk Who Sold His Ferrari' is _____. (+1, -0.33)

- a. Arvind Adiga
- b. Robin Sharma
- c. Manohar Malgonkar
- d. Arundhati Roy

5. One statement is given, followed by two assumptions, I & II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given assumptions can definitely be drawn from the given statement. (+1, -0.33)

Statement: "You are appointed as a trainee accountant on temporary basis. Your employment status will automatically be converted to permanent on submission of pass result of M Com final exam." — Extract from an appointment letter.

Assumptions:

- I. M Com final exam is a reasonable proof of an accountant's capability.
- II. All trainees are appointed on temporary basis.

- a. Both I and II are implicit
- b. Only assumption I is implicit
- c. Only assumption II is implicit
- d. Neither I nor II is implicit

6. A trader buys 60 bags of grain at Rs. 400 each. If he sells 18 bags at 8% profit, at what price should he sell the remaining bags to make 16.4% overall profit on selling the 60 bags? (+1, -0.33)

- a. Rs. 480
- b. Rs. 500
- c. Rs. 540
- d. Rs. 520

7. An object with greater _____ has greater inertia. (+1, -0.33)

- a. velocity
- b. acceleration
- c. volume
- d. mass

8. What is the diameter (in cm) of a sphere of surface area 1386 cm^2 ? (+1, -0.33)

- a. 14
- b. 21
- c. 10.5
- d. 24.5

9. An arrowhead at the end of a dimension line is approximately _____ long and 1 mm wide. (+1, -0.33)

- a. 3 mm
- b. 5 mm
- c. 1 mm
- d. 1.5 mm

10. Select the option that is related to the third word on the same basis as the second word is related to the first word. (+1, -0.33)

Letter : Envelope :: Dagger : ?

- a. Sheath
- b. Weapon
- c. Sword
- d. Sharp

11. Find the work done (in kJ) if a force of 750 N pushes a cart of mass 30 kg by 16 m. (+1, -0.33)

- a. 24
- b. 12
- c. 36
- d. 48

12. Choose the figure which is different from the rest. (+1, -0.33)

- a.

N	H	Z
C	F	D
A	E	Q

b.

Z	C	H
F	A	N
Q	D	E

c.

H	D	N
F	O	Z
C	E	A

d.

A	C	Q
Z	D	E
N	F	H

13. In a certain code language, '+' represents '×', '÷' represents '+', '-' represents '÷' and '×' represents '-'. Find out the answer to the following question. (+1, -0.33)

$$12 \div 6 - 2 + 10 \times 5 = ?$$

- a. 50
- b. 37
- c. 23
- d. 16

14. $20 - 2[25\% \text{ of } (15 \times 8 \div 6 + 12)] = \text{-----}$ (+1, -0.33)

- a. 4
- b. 6
- c. 10
- d. 8

15. Which hazardous substance can cause lung cancer? (+1, -0.33)

- a. Benzene vapours
- b. Asbestos particles
- c. Herbicides
- d. Arsenic

16. 210 mm × 297 mm are the dimensions of _____ size paper. (+1, -0.33)

- a. A4
- b. A2
- c. A3
- d. A1

17. Find mass of an iron cube of side 2 cm. (Density of iron is 7.8 gm/cm^3) (+1, -0.33)

- a. 3.9 gm
- b. 0.975 gm
- c. 15.6 gm
- d. 62.4 gm

18. If A, B and C can do a task working alone in 12, 18 and 36 days respectively. They all work together for 2 days, then B quits. How many days A and C working together will take to complete the remainder of the task? (+1, -0.33)

- a. 6

- b. 3
- c. 4
- d. 9

19. Which of the following gases is a highly poisonous, odourless, tasteless and colourless gas? (+1, -0.33)

- a. Carbon dioxide
- b. Carbon monoxide
- c. Methane
- d. Nitrogen dioxide

20. Green and yellow vegetables in our diet mostly provide us which element as food? (+1, -0.33)

- a. Copper
- b. Sodium
- c. Zinc
- d. Potassium

21. The sentences given in the question, which, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph. (+1, -0.33)

Outside their window there was a vine with attractive foliage, but it started shedding leaves one by one as summer passed through fall into winter.

A – Came dawn, when Johnsy looked out of the window from her sick bed, lo and behold, the leaf was still there and it continued to be there on the following days.

B – Finally, only one last leaf remained. Johnsy told Sue that when that leaf fell, her life would also go.

C – The girl regained her will to live and was fully recovered in a few days.

D – A concerned elderly artist friend of the girls, hearing this story, climbed outside the window in the bitterly cold night and painted a life-like leaf at the spot from where the last leaf had just fallen.

a. BDCA

b. BDAC

c. DBCA

d. DBAC

22. Find the specific heat capacity (in $\text{Jg}^{-1} \text{K}^{-1}$) of a block of metal of mass 500 g, the temperature of which rises by 80°C when it absorbs 10 kJ of heat? (+1, -0.33)

a. 0.4

b. 0.16

c. 1.56

d. 0.25

23. If $a - b = 5$ and $ab = 14$, then find $a^2 + b^2$. (+1, -0.33)

a. 53

b. 27

c. 5

d. 19

24. What is the area (in cm^2) of an equilateral triangle of side 8 cm? (+1, -0.33)

a. $32\sqrt{3}$

b. $8\sqrt{3}$

c. $64\sqrt{3}$

d. $16\sqrt{3}$

25. _____ is the physiological adjustment by an organism to environmental change. (+1, -0.33)

a. Bioremediation

b. Bioaccumulation

c. Cogeneration

d. Acclimation

26. Choose the letters which are different from the rest. (+1, -0.33)

a. HJL

b. PRT

c. VTR

d. UWY

27. Binary 110110101 is equal to decimal _____. (+1, -0.33)

- a. 333
 - b. 437
 - c. 349
 - d. 477
-

28. A/An _____ is software used to maintain the security of a private network. (+1, -0.33)

- a. malware
 - b. encryption
 - c. firewall
 - d. clickbait
-

29. Who was the chairman of the Constitution Drafting Committee? (+1, -0.33)

- a. Jawaharlal Nehru
 - b. Dr. B R Ambedkar
 - c. Dr. Rajendra Prasad
 - d. Sardar Patel
-

30. Two cars, X and Y, travel from A to B at average speeds of 50 km/hr and 75 km/hr respectively. If X takes 2 hours more than Y for the journey, then the distance between A and B in km is _____.

- a. 600
- b. 400
- c. 800

d. 300

31. The Umaid Bhawan Palace is in which city?

(+1, -0.33)

- a. Jaipur
- b. Jodhpur
- c. Bikaner
- d. Udaipur

32. A and B start to walk from point P towards point Q. The distance between P and Q is 9 km. B starts 4 minutes after A. A, on reaching Q, immediately returns and after walking a kilometre meets B. If A's speed is a kilometre in 10 minutes, what is B's speed in kilometres per minute?

(+1, -0.33)

- a. $\frac{1}{15}$
- b. $\frac{1}{8}$
- c. $\frac{1}{12}$
- d. $\frac{1}{6}$

33. If $A \setminus (B$ means A is the husband of B, $A \# B$ means A is the brother of B and $A * B$ means A is the mother of B, then what does $P \setminus (Q * R \# S$ mean?

(+1, -0.33)

- a. P is the father of S
- b. P is the brother-in-law of S
- c. P is the son of S
- d. P is the brother of S

34. What is the angle between the hour hand and the minute hand at half past two? (+1, -0.33)

- a. 105°
- b. 75°
- c. 120°
- d. 90°

35. Classical musician Shivkumar Sharma is associated with which musical instrument? (+1, -0.33)

- a. Shehnai
- b. Tabla
- c. Violin
- d. Santoor

36. If 36 J of work is done in moving a charge Q across 8 V, find Q (in coulombs). (+1, -0.33)

- a. 288
- b. 9
- c. 4.5
- d. 16

37. Pipe A can fill a tank in 6 hours. Pipe B can empty it in 15 hours. If both the pipes are opened together, then the tank will be filled in how many hours? (+1, -0.33)

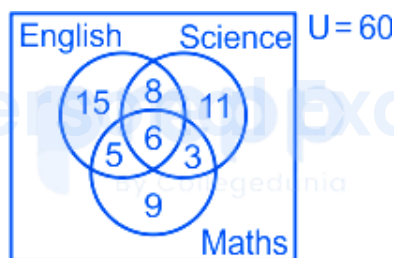
- a. 9

- b. 8
- c. 12
- d. 10

38. If half a litre of hot water at 90°C is mixed with three and a half litres of cold water at 10°C , find the final equilibrium temperature (in $^{\circ}\text{C}$) if no heat is lost. (+1, -0.33)

- a. 20
- b. 40
- c. 30
- d. 50

39. The given Venn diagram shows the number of students who have passed in the three exams, viz. English, Science and Maths. How many students failed in all the three exams? (+1, -0.33)



- a. 3
- b. 12
- c. 9
- d. 6

40. One statement is given followed by two conclusions. Decide which of the given conclusions can definitely be drawn from the given statement. (+1, -0.33)

Statement: As income increases, cars become more affordable.

Conclusion I: With greater use of technology, cars are now cheaper than they were a generation ago.

Conclusion II: Cars will become so numerous that no future technology will solve the traffic problem.

- a. Only conclusion I follows
- b. Both I and II follow
- c. Neither I nor II follows
- d. Only conclusion II follows

-
41. Which of the following folk dances is from Assam? (+1, -0.33)

- a. Giddha
- b. Lezim
- c. Nati
- d. Bagurumba

-
42. What is the relative density of a solid of mass 50 gm which when fully immersed in water weighs 10 gm? (+1, -0.33)

- a. 5
- b. 1.25
- c. 2.5

d. 0.8

43. -100° Celsius = _____ Fahrenheit

(+1, -0.33)

a. -373°

b. -148°

c. 173°

d. -212°

44. When a number is increased by 36, it becomes 109% of itself. What is the number?

(+1, -0.33)

a. 300

b. 450

c. 360

d. 400

Your Personal Exams Guide

45. Two children, weighing 30 kg and 15 kg, sit on one side of a see-saw at a distance of 1 m and 1.2 m respectively, from the fulcrum. A boy of 'M' kg sits on the other side of the see-saw at a distance of 1.2 m from the fulcrum, and the see-saw is in equilibrium. Find M.

(+1, -0.33)

a. 36

b. 45

c. 48

d. 40

46. Rearrange the parts of the sentence in the correct order.

(+1, -0.33)

A customer based on reasons

X- chances are that they actually made the change

Y- may not come out of the changing room, but

Z- which is unfortunately inappropriate

a. YXZ

b. ZYX

c. XZY

d. ZXY

47. If the speed of a car increases from 54 km/hr to 90 km/hr, its kinetic energy increases in the ratio of _____.

(+1, -0.33)

a. 3/5

b. 4/9

c. 9/16

d. 9/25

48. Find the length (in cm) of the edge of a cube of a piece of wood which weighs 80 N. (Use $g = 10 \text{ m/s}^2$, density of wood = 1 g/cm^3)

(+1, -0.33)

a. 60

b. 20

c. 80

d. 40

49. If a shopkeeper sells an item at Rs. 2,700, he makes 8% profit. If he sells the item at Rs. 3,000 what will be the percentage of profit? (+1, -0.33)

a. 12

b. 20

c. 10

d. 25

50. A bullet travels 90 m in 0.2 seconds. Find its speed in km/hr. (+1, -0.33)

a. 162

b. 1,620

c. 1,250

d. 125

51. Two resistors of $R \Omega$ and 60Ω are connected in parallel to get an effective resistance of 24Ω . Find R . (+1, -0.33)

a. 56

b. 64

c. 48

d. 40

52. Antihistamines are found in some first-aid boxes. When should these drugs be taken? (+1, -0.33)

- a. To aid in clotting of blood
- b. To ease the symptoms of hay fever and other allergies
- c. To ease the indigestion and heartburn
- d. To bring relief from asthma

53. A postman starts from the post office and cycles 13 km south, then turns west and cycles 10 km, then turns north and cycles 8 km, then turns east and cycles 2 km and then turns to his left and cycles 5 km. Where is he now with reference to his starting position? (+1, -0.33)

- a. 8 km east
- b. 12 km east
- c. 12 km west
- d. 8 km west

54. Acceleration due to gravity on moon is $\frac{1}{6}$ th that on earth. How much would an astronaut weigh on moon if he weighs 90 kgf on earth? (acceleration due to gravity on earth = 10 m/s^2) (+1, -0.33)

- a. 15 N
- b. 150 N
- c. 90 N
- d. 9 N

55. Find the power (in W) of a pump if it can lift 1 tonne of water by 90 m in 30 minutes. (Assume 100% efficiency and use $g = 10 \text{ m/s}^2$) (+1, -0.33)

- a. 50
- b. 250
- c. 25
- d. 500

56. Here are some words from an artificial language. (+1, -0.33)

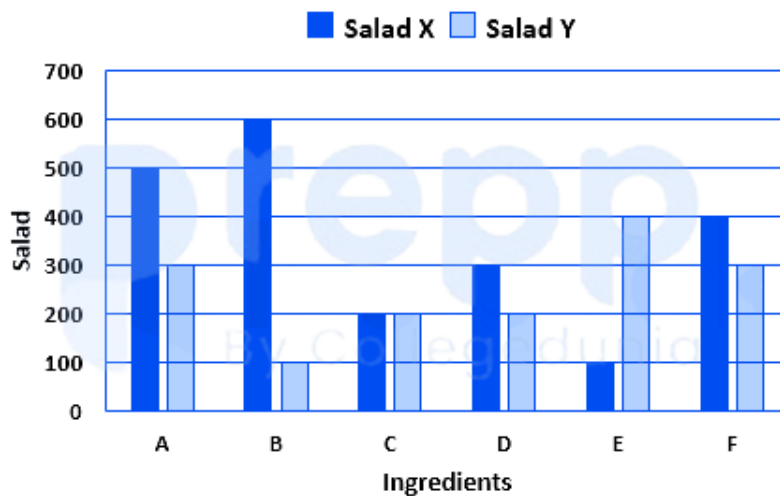
unacri means lighthouse

bancri means lightweight

banetu means overweight

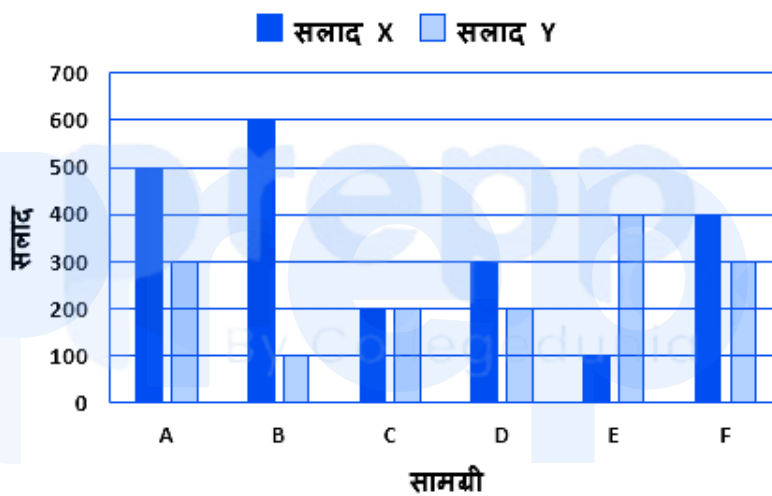
Which word would mean 'overdrive'?

- a. adiban
- b. adietu
- c. simuna
- d. critch



57.

(+1, -0.33)



The bar graph shows all the ingredients (in grams) required to make two types of salads, X and Y. If Ingredient B of Salad X is reduced by 100 grams and Ingredient E of salad Y is increased by 25% then salad Y would be lighter than salad X by _____.

- a. 37.50%
- b. 25%
- c. 20%
- d. 22.50%

58. At present, the ratio between the ages of Anu and Dimpy is 5 : 8. After 2 years, the ratio of their ages will become 2 : 3. What was Dimpy's age before 2 years? (+1, -0.33)

- a. 10
- b. 12
- c. 16
- d. 14

59. In the question, two statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if they seem to be at variance with commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements. (+1, -0.33)

Statement:

All flags are banners.

Some flags are emblems.

Conclusion:

I. Some emblems are banners.

II. All banners are emblems.

III.No emblems are banners.

- a. Only conclusion I follows
- b. Only conclusion III follows
- c. All conclusions I, II and III follow
- d. Only conclusion I and III follow

60. To _____ is to prepare a storage medium, usually a disk, for reading and writing. (+1, -0.33)

- a. format
- b. defrag
- c. map
- d. boot

61. Choose the one which is different from the rest. (+1, -0.33)

- a. Father
- b. Son
- c. Mother-in-law
- d. Brother

62. Which of the following is NOT a base unit? (+1, -0.33)

- a. mole
- b. ampere
- c. radian
- d. candela

63. Who invented the blue jeans? (+1, -0.33)

- a. Levi Strauss
- b. Todd Oldham

- c. Calvin Klein
- d. Gianni Versace

64. Which of the following is the correct relation between resistance 'R', conductivity 'σ', length 'L' and area of cross section 'A' of a metal wire? (+1, -0.33)

- a. $RL = A\sigma$
- b. $R\sigma A = L$
- c. $RA = L\sigma$
- d. $\sigma = RL/A$

65. Select the option that is related to the third word on the same basis as the second word is related to the first word. (+1, -0.33)

Poem : Stanza :: Book : ?

- a. Language
- b. Story
- c. Page
- d. Printing

66. Find the value of $5 \sin \theta - 2 \operatorname{cosec} \theta$, if $\theta = 30^\circ$. (+1, -0.33)

- a. $3/2$
- b. $-3/2$
- c. $2/3$
- d. $2/3$

67. In a certain gear train, the driver has 18 teeth while the follower has 8 teeth. For every 16 turns of the driver, the follower turns _____ times. (+1, -0.33)

- a. 18
- b. 8
- c. 36
- d. 9

68. Farad per metre is the unit of _____. (+1, -0.33)

- a. watt per steradian
- b. permittivity
- c. permeability
- d. electric conductance

69. Which of the following is an example of a first class lever? (+1, -0.33)

- a. Ice tongs
- b. Wheel barrow
- c. A pair of scissors
- d. Nut cracker

70. If $5x/2 - \frac{1}{4}(6x - 5/3) = 7/6$, then the value of x is _____. (+1, -0.33)

- a. $5/4$
- b. $3/4$

c. $\frac{3}{7}$

d. $\frac{5}{7}$

71. Find the highest common factor of 506 and 782.

(+1, -0.33)

a. 29

b. 34

c. 46

d. 22

72. An executive earns a salary of Rs. 12,600 every month, and he spends $\frac{5}{7}$ of it. If his salary increases by $\frac{1}{3}^{\text{rd}}$ and his spending increases by $\frac{1}{5}^{\text{th}}$ of the present expenditure, what fraction of his salary will he save?

(+1, -0.33)

a. $\frac{7}{16}$

b. $\frac{8}{15}$

c. $\frac{7}{15}$

d. $\frac{5}{14}$

73. A alone can do a task in 35 days and B alone in 14 days. If they work on it together for 5 days, then what fraction of the task is left?

(+1, -0.33)

a. Quarter

b. One-thirds

c. Half

d. Three fourths

74. If $8 \# 12 = 10$; $5 \# 9 = 7$; $6 \# 10 = 8$, then find the value of $14 \# 4$. (+1, -0.33)

- a. 10
- b. 9
- c. 5
- d. 3

75. In the following question, which set of letters and numbers, when sequentially placed at the gaps in the given series, shall complete it? (+1, -0.33)

1_2x_bb_yy_cc_6zzz

- a. a345c
- b. 3a45b
- c. 3a4b5
- d. 3a45c

76. Find the specific latent heat of vaporisation of 1.25 g of nitrogen (in Jg^{-1}), if it releases 250 Joules of heat when it condenses at its boiling point of 196°C . (+1, -0.33)

- a. 469
- b. 500
- c. 312.5
- d. 200

77. A _____ map converts color intensity or grayscale information to heights to give the appearance that features are raised above the surface, like embossed (+1, -0.33)

letters.

- a. shade
- b. bump
- c. tone
- d. tint

78. A truck of mass 5000 kg accelerates from 25 m/s to 35 m/s. Find the change in its kinetic energy (in MJ). (+1, -0.33)

- a. 1
- b. 2.5
- c. 1.5
- d. 2

79. Find the potential difference (in V) across a resistance of 2.5 k Ω through which a 2 mA current flows. (+1, -0.33)

- a. 5
- b. 0.2
- c. 1.25
- d. 0.8

80. The Living Planet Report, released every two years, is the flagship publication of which organisation? (+1, -0.33)

- a. The Nature Conservancy

- b. World Wide Fund for Nature
 - c. Conservation International
 - d. Wildlife Conservation Society
-

81. In a certain code DIRTY is coded as 24759 and FOAM is coded as 1863. Using the same code ARID will be coded as _____. (+1, -0.33)

- a. 2489
 - b. 9165
 - c. 1579
 - d. 6742
-

82. The sum of two binary numbers 110111 and 1100101 is _____. (+1, -0.33)

- a. 100011100
 - b. 100000110
 - c. 11110000
 - d. 11010100
-

83. Which team won the Indian Premier League (IPL) in 2018? (+1, -0.33)

- a. Sunrisers Hyderabad
 - b. Chennai Super Kings
 - c. Royal Challengers Bangalore
 - d. Kolkata Knight Riders
-

84. Find the heat capacity of a pan of mass 200 g, if its temperature rises by 8°C on receiving 2000 J of heat. (+1, -0.33)

- a. 250 J K^{-1}
- b. 5 J K^{-1}
- c. $50\text{ J kg}^{-1}\text{ K}^{-1}$
- d. $1.25\text{ J kg}^{-1}\text{ K}^{-1}$

85. If $3A = 6B = 7C$; find $A : B : C$. (+1, -0.33)

- a. $12 : 7 : 3$
- b. $7 : 12 : 6$
- c. $14 : 7 : 6$
- d. $7 : 3 : 12$

86. $(0.1^2 - 0.025^2) \div (0.1 - 0.025) = \text{-----}$. (+1, -0.33)

- a. 0.325
- b. 0.125
- c. 0.625
- d. 0.25

87. Find the coordinates of the midpoint of the segment joining the points $(-4, 7)$ and $(2, 3)$. (+1, -0.33)

- a. $(-1, 5)$

- b. $(-2, 3)$
 - c. $(1, -5)$
 - d. $(2, 4)$
-

88. The National Skills Development Corporation (NSDC) is a public-private partnership formed under India's _____. (+1, -0.33)

- a. Ministry of Finance
 - b. Ministry of Electronics & Information Technology
 - c. Ministry of Corporate Affairs
 - d. Ministry of Science & Technology
-

89. The resistance of a metal rod depends on all of the following, except _____. (+1, -0.33)

- a. resistivity
 - b. density
 - c. length
 - d. temperature
-

90. If the amount received at the end of 1st and 2nd year at compound interest on a certain principal is Rs. 1,350 and Rs. 1,458 respectively, what is the rate of interest? (+1, -0.33)

- a. 10%
- b. 15%
- c. 12%

d. 8%

91. Find the efficiency of a pulley system which has a mechanical advantage of 2.5 and where the load lifts by 2.5 meters on pulling the rope by 10 m. (+1, -0.33)

a. 62.50%

b. 25.00%

c. 40.00%

d. 100.00%

92. _____ is when we cover a surface with a pattern of flat shapes so that there are no overlaps or gaps. (+1, -0.33)

a. Tessellation

b. Tracking

c. Gradient

d. Kerning

93. Find x if the mean of the numbers 10, 4, 1, 15, 15, x, 12 and 14 is 10. (+1, -0.33)

a. 7

b. 8

c. 9

d. 10

94. In the question, two statements are given, followed by two conclusions, I, and II. (+1, -0.33)
You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement 1: Some wagons are buggies.

Statement 2: All wagons are carts.

Conclusion I: All buggies are carts.

Conclusion II: Some carts are buggies.

- a. Only conclusion I follows
- b. Both I and II follow
- c. Neither I nor II follows
- d. Only conclusion II follows

-
95. If $\sqrt{X} + 0.24 = \sqrt{0.1296}$, then find X. (+1, -0.33)

- a. 0.0144
- b. 0.12
- c. 1.44
- d. 0.0012

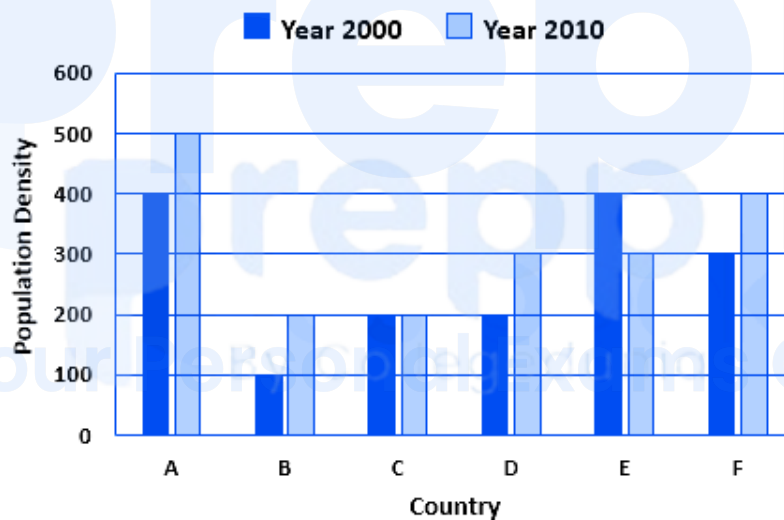
-
96. Which of the following recipients of the Dadasaheb Phalke Award received it posthumously? (+1, -0.33)

- a. Vinod Khanna
- b. Satyajit Ray

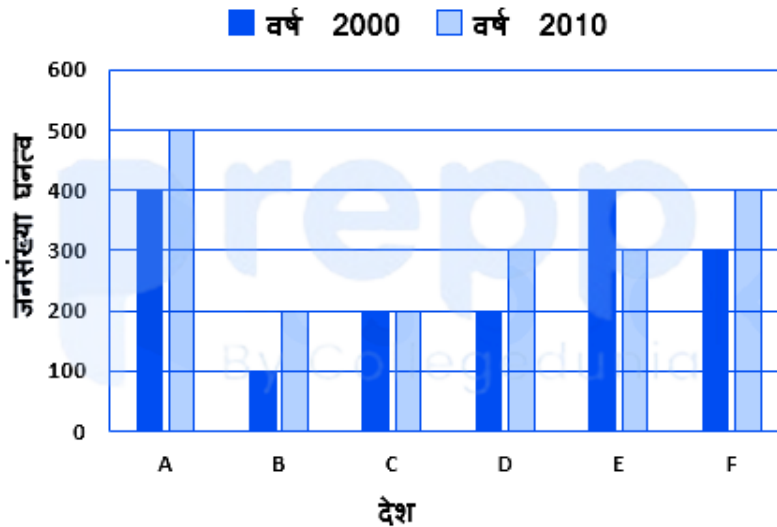
- c. Naushad
- d. Durga Khote

97. A said to B, "You are my husband's daughter-in-law's son." How is B related to A? (+1, -0.33)

- a. B is the father of A
- b. B is the grandson of A
- c. B is the brother of A
- d. B is the son of A



98. (+1, -0.33)



The bar graph shows the population density of 6 countries in 2000 and 2010. If the population of country B is 10 million in 2000 and the population of country D is 6 million in 2010, how much more is the area of country B than the area of country D, where population density is measured as the number of people per 100 square kilometers.

- a. 500%
- b. 20%
- c. 400%
- d. 25%

99. _____ curves employ at least three points to define a curve. The two endpoints of the curve are called anchor points. The other points, which define the shape of the curve, are called handles, tangent points, or nodes. (+1, -0.33)
- a. Bicorn
 - b. Bezier
 - c. Deltoid
 - d. Kappa

100. The weights of 3 boxes are 4, 7 and 10 kilograms. Which of the following CANNOT be the total weight, in kilograms, of any combination of these boxes? (+1, -0.33)
- a. 14
 - b. 21
 - c. 17
 - d. 18

Prepp

Your Personal Exams Guide

Part B

101. Which of the following is best gauge/machine to inspect the parallel screw ring gauges? (+1, -0.33)

- a. Thread gauge
- b. Plug gauge
- c. Comparators
- d. Ring gauge

102. What is the percentage of carbon in steel? (+1, -0.33)

- a. Less than 2%
- b. More than 50%
- c. Greater than 2%
- d. 100%

103. In production, Jig is a device which: (+1, -0.33)

- a. holds the cutting tool and guides the work piece
- b. guides both work piece and cutting tool
- c. guides the cutting tool
- d. holds the work piece and does not guide the cutting tool

104. The main mechanical property of aluminium is _____. (+1, -0.33)

- a. Strongness

- b. Brittleness
 - c. Softness
 - d. Toughness
-

105. Which of the following keys is used for connecting the pulley with shaft? (+1, -0.33)

- a. Woodruff key
 - b. Gib head key
 - c. Flat saddle key
 - d. Taper Key
-

106. Boring is a process of ----- (+1, -0.33)

- a. finishing the hole
 - b. making external threads
 - c. enlarging a hole
 - d. making a hole
-

107. Which is the most common shape of a nut? (+1, -0.33)

- a. Flat
 - b. Round
 - c. Square
 - d. Hexagonal
-

108. Which of the following, when mixed with water, gives a coolant for the metal cutting? (+1, -0.33)

- a. Vegetable oil
- b. Soluble oil
- c. Mineral oil
- d. Coconut oil

109. Which of the following is the most common type of cutting fluid used in almost all the machining operation? (+1, -0.33)

- a. Lard oil
- b. Synthetic Oil
- c. Olive oil
- d. Soluble oil

110. Pipe cutting die is generally _____. (+1, -0.33)

- a. divided in four parts
- b. undivided
- c. divided in three parts
- d. divided in two parts

111. What is the thickness of washer required, when the nominal diameter of bolt is considered as D? (+1, -0.33)

- a. 0.09 D

- b. 0.12 D
 - c. 0.7 D
 - d. 0.1 D
-

112. Angle of Knuckle thread is _____ (+1, -0.33)

- a. 55°
 - b. 60°
 - c. 30°
 - d. 45°
-

113. Which material's pipe is used for drainage pipeline? (+1, -0.33)

- a. Brass pipe
 - b. G.I. Pipe
 - c. Steel Pipe
 - d. Ceramic
-

114. The Polygon effect is observed in _____ (Choose the correct option) (+1, -0.33)

- a. Shaft drive
 - b. Gear drive
 - c. Chain drive
 - d. Belt drive
-

115. The head stock of a lathe is situated at the (+1, -0.33)

- a. right hand end of the lathe bed
- b. left hand end of the lathe bed
- c. middle of the lathe bed
- d. bottom of the lathe bed

116. Apart from reducing friction, what is the secondary purpose of the lubrication? (+1, -0.33)

- a. Reducing corrosion
- b. Limited Motion
- c. Maintaining Pressure
- d. Limited rotation

117. What is the size of drilled hole required for M10 × 1 mm in metric drill? (+1, -0.33)

- a. 9.1 mm
- b. 8 mm
- c. 10 mm
- d. 7.1 mm

118. Which of the following is not a Sheet metal cutting tool? (+1, -0.33)

- a. Snip
- b. Power Shear

- c. Milling Cutter
 - d. Mallet
-

119. Which of the following is a sheet metal forming process? (+1, -0.33)

- a. Knurling
 - b. Facing
 - c. Drilling
 - d. Rolling
-

120. Which of the following components of spur gear's force assists the rotation on driven gear? (+1, -0.33)

- a. The worm and worm wheel
 - b. The radial component
 - c. The axial component
 - d. The tangential component
-

121. Which one of the following is used to rectify damaged or rusted threads? (+1, -0.33)

- a. Two-piece die
 - b. Die nut
 - c. Circular split die
 - d. Die plate
-

122. V belt having which shape of cross section (+1, -0.33)

- a. Rectangular
 - b. Square
 - c. Circular
 - d. Trapezoidal
-

123. Which of the following tests is used for inspection of cooling systems? (+1, -0.33)

- a. static
 - b. dynamic
 - c. ordinary
 - d. critical
-

124. Galvanizing is generally done on _____. (+1, -0.33)

- a. non-metallic substance
 - b. non-ferrous metal
 - c. low carbon steel
 - d. cast iron
-

125. Which of the following valves is used to prevent product flow in a wrong direction? (+1, -0.33)

- a. Seat valve
- b. Half turn valve

- c. Check valve
- d. Butterfly valve

126. What is the LMC of shaft having tolerance with size $\phi 24.6 \pm 0.5$ (+1, -0.33)

- a. $\phi 25.1$
- b. $\phi 24.1$
- c. $\phi 24$
- d. $\phi 24.6$

127. Two pulleys mounted on driven shaft and one pulley on driving shaft of a flat belt drive is a ----- (+1, -0.33)

- a. Cross pulley drive
- b. Fast and loose pulley drive
- c. Multiple belt drive
- d. Idle pulley drive

128. Vernier Height gauge is used for ----- Choose the right answer. (+1, -0.33)

- a. measuring height of a work piece
- b. checking right angular surfaces
- c. scribing horizontal lines on work piece
- d. scribing vertical lines on work piece

129. Clamp diodes used in comparators _____ (+1, -0.33)

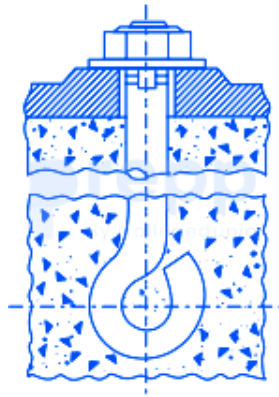
- a. To protect the op-amp from damage.
 - b. To develop the input offset current
 - c. To increase the output voltage
 - d. To increase the gain of op-amp.
-

130. In an assembly, Hole size is smaller than shaft size then this type of fit is known as _____ (+1, -0.33)

- a. Clearance fit
 - b. Interference fit
 - c. Transition fit
 - d. Sliding fit
-

131. How is power transmission achieved in positive contact clutches? (+1, -0.33)

- a. Minor part is achieved by friction.
 - b. Major part is achieved by friction
 - c. It is achieved through friction.
 - d. It is achieved by shear contact
-



132.

(+1, -0.33)

In the above figure, what is the name of the bolt?

- a. Bent foundation bolt
- b. Lewis foundation bolt
- c. Eye foundation bolt
- d. Rag foundation bolt

133. Bore gauge is used for measuring the _____, ring the _____.

(+1, -0.33)

- a. depth of a hole
- b. diameter with an accuracy of 0.05 mm
- c. outside diameter of a shaft shaft
- d. inside diameter of a hole

134. Split pin is used for locking _____ nut.

(+1, -0.33)

- a. castle
- b. square
- c. flange

d. wing

135. The resistance of fine thread unscrewing is _____ (+1, -0.33)

- a. low
 - b. high
 - c. medium
 - d. not so good
-

136. Identify the file having flat, triangular face with teeth on the wide face only used for finishing sharp corners. (+1, -0.33)

- a. Riffler file
 - b. Crossing file
 - c. Barrette file
 - d. Mill saw file
-

Your Personal Exams Guide

137. Which of the following types of maintenance is done on a daily basis? (+1, -0.33)

- a. Routine maintenance
 - b. Breakdown maintenance
 - c. Ordinary maintenance
 - d. Special maintenance
-

138. Which of the following is the systematic approach for maintenance? (+1, -0.33)

- a. Problem – Diagnosis – Cause – Rectification
 - b. Problem – Measure – Diagnosis – Rectification
 - c. Problem – Cause – Diagnosis – Rectification
 - d. Problem – Diagnosis – Measure – Rectification
-

139. Recess height can be measured by _____ micrometer. (+1, -0.33)

- a. outside
 - b. inside
 - c. depth
 - d. screw thread
-

140. Which bolt is commonly used in marine shaft couplings? (+1, -0.33)

- a. Ellen bolt
 - b. Eye bolt
 - c. Headless tapered bolt
 - d. Hexagonal bolt
-

141. Which abrasive is used for soft ferrous and non-ferrous metals for lapping? (+1, -0.33)

- a. copper oxide
- b. Fly Ash
- c. sodium chloride
- d. Aluminium oxide

142. What will be the DC range in solenoids pneumatic systems? (+1, -0.33)

- a. 110 V to 220 V
- b. 220 V to 250 V
- c. 230 V to 440 V
- d. 12 V to 24 V

143. How many teeth of taper tap bottom are chamfered? (+1, -0.33)

- a. 1 to 2
- b. 4 to 6
- c. 20 to 30
- d. 7 to 10

144. Which one of these is a characteristic of high viscosity fluid (choose the appropriate option) (+1, -0.33)

- a. Semi-liquid state
- b. Less power consumption
- c. Slow operation
- d. Pressure drop

145. Which of the following is a striking tool? (+1, -0.33)

- a. V-Blockନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ଏକ ଚମକାର ଉପକରଣ?
- b. Ball peen hammer

- c. File
 - d. Scribing block
-

146. A process of joining similar metals by application of heat with or without application of pressure and addition of filler material is called _____ (+1, -0.33)

- a. welding
 - b. nut and bolt joint
 - c. soldering
 - d. forming
-

147. Which of the following lubricants is obtained by fractional distillation of petroleum? (+1, -0.33)

- a. Coolant
 - b. Synthetic oils
 - c. Mineral Oils
 - d. Fatty oils
-

148. How do you recognize a drill for soft metal (+1, -0.33)

- a. By the large helix angle
 - b. Based on cutting parameters
 - c. By the small helix angle
 - d. Based on required hole diameter
-

149. The SI Unit of torque is _____ (+1, -0.33)

- a. N-m^2
- b. $\text{N}^2\text{-m}$
- c. N-m
- d. N

150. The process of removing stock from a metal surface is known as _____ (+1, -0.33)

- a. soldering
- b. brazing
- c. honing
- d. coating

151. What kind of bearing is footstep bearing? (+1, -0.33)

- a. Static load bearing
- b. Torsional load bearing
- c. Tangential load bearing
- d. Thrust load bearing

152. What is the die nut? (+1, -0.33)

- a. A die which is used for shaping
- b. A die in the shape of a nut

- c. A forged nut
 - d. A nut for tightening a die
-

153. Which of the following gauges is used to check the inside taper hole? (+1, -0.33)

- a. Thread gauge
 - b. Rectangular gauge
 - c. Taper plug gauge
 - d. Square gauge
-

154. A series of processes to joint various parts to get a complete product is known as ----- (+1, -0.33)

- a. storing
 - b. queuing
 - c. assembling
 - d. disassembling
-

155. What are the two arms of forklift called? (+1, -0.33)

- a. tail
 - b. gibb
 - c. fork
 - d. head
-

156. Which portion of a lathe is used to give depth to the cut? (+1, -0.33)

- a. Lead screw
- b. Cross slide
- c. Tail stock
- d. Compound slide

157. It works on the principle of rake & pinion. (+1, -0.33)

- a. Vernier bevel protactor
- b. Dial test indicator
- c. Vernier height gauge
- d. Micrometer

158. A tapping hole should be _____ the tap size. (+1, -0.33)

- a. equal to
- b. 10 mm bigger than
- c. larger than
- d. smaller than

159. Making a hole in a metal piece is called _____. (+1, -0.33)

- a. finishing
- b. drilling

- c. facing
 - d. knurling
-

160. Which of the following material is not used in alloy steels? (+1, -0.33)

- a. Sodium
 - b. Magnesium
 - c. Silicon
 - d. Chromium
-

161. After using a carbon dioxide fire extinguisher, the nozzle gets extremely cold. What does this indicate? (+1, -0.33)

- a. You should not use it.
 - b. The material inside is finished.
 - c. It is safe to continue.
 - d. The materials inside are running low
-

162. Which of the following measuring gauge is used to measure the Diameter of 0.6 mm hole (+1, -0.33)

- a. Screw gauge
 - b. Ring gauge
 - c. Pin gauge
 - d. Internal micrometer
-

163. Zinc is a _____. (+1, -0.33)

- a. non-ferrous metal
 - b. ferrous metal
 - c. non-metal
 - d. type of steel
-

164. The actual difference between the surface speed of the belt and pulley is known as _____. (+1, -0.33)

- a. dressing
 - b. torque
 - c. slip
 - d. creep
-

165. Which gears can be used in intersecting shafts for power transmission (choose the correct option) (+1, -0.33)

- a. Helical Gear
 - b. Worm gear
 - c. Bevel Gear
 - d. Rack Pinion
-

166. Which of the following types of jig is used for machining in more than one plane by single setting? (+1, -0.33)

- a. Open type jig

- b. Box type jig
 - c. Plate type jig
 - d. Template jig
-

167. The fixing of different parts of a machine properly as per the requirement is called _____. (+1, -0.33)

- a. unpacking
 - b. alignment
 - c. dismantling
 - d. checking
-

168. Which of the following is not a part of rivet? (+1, -0.33)

- a. Head
 - b. Point
 - c. Thread
 - d. Shank
-

169. A bench vice body is made of _____. (+1, -0.33)

- a. cast iron
 - b. forged steel
 - c. aluminium alloy
 - d. steel
-

170. The power source in pneumatic system is _____ (+1, -0.33)

- a. Air receiver
- b. Compressor
- c. Valve
- d. Muffler

171. Dial gauge typically measure in the range of _____. (+1, -0.33)

- a. 600 mm to 700 mm
- b. 400 to 500 mm
- c. 800 to 900 mm
- d. 0.25 to 300 mm

172. Alumina is prepared from _____. (+1, -0.33)

- a. aluminium
- b. copper
- c. bauxite
- d. galena

173. If one of the belts of a multiple V-belt drive is broken, then we should replace _____ (+1, -0.33)

- a. all the belts
- b. the broken belt and the belts on right side

- c. the broken belt only
 - d. the broken belt and the belts of left side
-

174. Which bolts are fitted on machine Table T-Slots

(+1, -0.33)

- a. T-headed bolt
 - b. Flange bolt
 - c. Hook bolt
 - d. Hexagon-headed bolt
-

175. 'GO' and 'NO GO' gauge is a type of

(+1, -0.33)

- a. Limit gauge
- b. Ring gauge
- c. Slip gauge
- d. Plug gauge

Your Personal Exams Guide