RAILWAY RECRUITMENT BOARDS
रेलवे भर्ती बोर्ड

RRB ALP 2018 CBT-2 Heat Engine

Assistant Loco Pilot & Technicians | CEN 01/2018 | CBT-2 | Trade: Heat Engine

ENGLISH ANSWER KEY

Official Answer Key

Complete Paper · 23-01-2019

Questions	175
Marking	+1 correct / -1/3 wrong
Duration	Part A 90 min · Part B 60 min
Sections	Part A 100 · Part B (Heat Engine) 75

Every paper is set out as the official RRB response sheet, typed from the saved paper, with the official answer key marked. No candidate details are included.

HOW TO USE THIS BOOK

1. Open the INDEX on the next page.
2. Click any row to jump straight to that date and shift.
3. The correct option is ticked in green; the other options are crossed in red.
4. Use the bookmarks panel of your PDF reader to move between shifts.

Blackbook

Score & Rank Calculator · rank.qmaths.in

Compiled 02 November 2026

INDEX · Click any row to open that paper

RRB ALP 2018 CBT-2 Heat Engine (English) · 1 shifts

DAY	DATE	SHIFT	TIME	PAGE
Day 1	**23-01-2019**	Shift 1	16:30 - 19:00	**3**

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Test Date	23/01/2019
Test Time	4:30 PM - 7:00 PM
Subject	ALP CBT-2

*** Note**
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.

Section : **Part A**

Q.1 Which Indian cricketer received the Padma Bhushan in 2018?

Ans
- ✗ A. Sachin Tendulkar
- ✗ B. Virat Kohli
- ✗ C. Saurav Ganguly
- ✓ D. MS Dhoni

Q.2 Given below are two statements, followed by two conclusions, I and II. 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, follow(s) from the given statements.

Statement 1: No quadrilaterals are polygons.
Statement 2: All polygons are rhombuses.

Conclusion I: Some rhombuses are quadrilaterals.
Conclusion II: Some rhombuses are polygons.

Ans
- ✗ A. Only conclusion I follows
- ✗ B. Both I and II follow
- ✓ C. Only conclusion II follows
- ✗ D. Neither I nor II follows

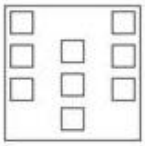
Q.3 In an examination, the highest score and the lowest score differed by 55 and the higher one was 9/4 times the lower one. What is the lowest score?

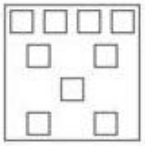
Ans
- ✗ A. 36
- ✗ B. 40
- ✗ C. 48
- ✓ D. 44

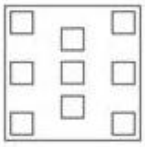
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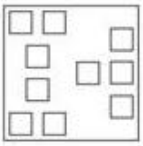
Q.4 Choose the figure that is different from the rest.

Ans

✗ A. 

✗ B. 

✗ C. 

✓ D. 

Q.5 The effort in a class 1 lever is in _____ direction(s).

Ans

✗ A. multiple

✗ B. three

✓ C. one

✗ D. two

Q.6 A 4-digit number 1xy7 is divisible by 11. What is the value of x-y?

Ans

✗ A. - 4

✗ B. - 2

✓ C. - 6

✗ D. - 8

Q.7 86°F is equal to _____ .

Ans

✓ A. 30°C

✗ B. 34°C

✗ C. 20°C

✗ D. 10°C

Q.8 Velocity ratio of simple machine is the ratio of distance travelled by the _____ to the distance travelled by the _____ in the machine.

Ans

✓ A. effort; load

✗ B. load; load

✗ C. load; effort

✗ D. effort; effort

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Q.9 What is the median of 8, 5, 7, 9, 11, 6, 10 ?

Ans
- ✗ A. 7
- ✗ B. 9
- ✓ C. 8
- ✗ D. 10

Q.10 A source of voltage V maintains a current i in a circuit. The energy supplied to the circuit by the source in time t is _____.

Ans
- ✗ A. V/it
- ✗ B. 1/Vit
- ✓ C. Vit
- ✗ D. Vi/t

Q.11 _____ protection must be worn whenever noise levels exceed the noise exposure standard.

Ans
- ✗ A. Head
- ✓ B. Hearing
- ✗ C. Foot
- ✗ D. Eye

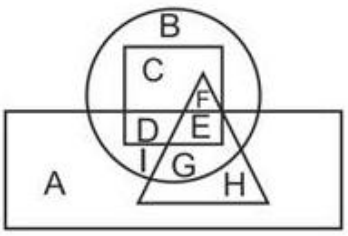
Q.12 An object weighs X units on the earth. If we take the same object to the moon, its weight there will be _____.

Ans
- ✓ A. less than X
- ✗ B. more than X
- ✗ C. equal to X
- ✗ D. zero

Q.13 What is 80% of 50% of 90?

Ans
- ✓ A. 36
- ✗ B. 30
- ✗ C. 32
- ✗ D. 34

Q.14 In the following figure, square represents Chinese, triangle represents dancers, circle represents male and rectangle represents architects. Which set of letters represents dancers who are male?



Ans
- ✗ A. DEIG
- ✗ B. DEF
- ✗ C. IGH
- ✓ D. GEF

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Q.15 Two planes E and F start flying from the same point. E flies 7 km west, then turns to its left and flies 15 km. Meanwhile F flies 11 km east and turns right and flies 15 km. Where is F with respect to E?

Ans

✗ A. F is 4 km east of E

✗ B. F is 18 km west of E

✗ C. F is 4 km west of E

✓ D. F is 18 km east of E

Q.16 What is the distance between the points (4, 3) and (3, -2)?

Ans

✗ A. $\sqrt{24}$

✗ B. 6

✓ C. $\sqrt{26}$

✗ D. 5

Q.17 Identify the material having high coefficient of volume expansion.

Ans

✗ A. Glass

✗ B. Water

✓ C. Alcohol

✗ D. Brass

Q.18 The effort applied to move a load is 15 units and the machine advantage is observed to be 3. Find the load.

Ans

✗ A. 15 units

✗ B. 3 units

✓ C. 45 units

✗ D. 5 units

Q.19 A cylindrical wire of length L and radius r has a resistance of R. The resistance of another wire of the same material but thrice its length and one-third its radius will be_____.

Ans

✗ A. 9R

✓ B. 27R

✗ C. 3R

✗ D. R

Q.20 If, '+' represents '×', '-' represents '+', '×' represents '÷' and '÷' represents '-', then find the value of the following expression.
$9 \times 3 + 6 \div 2 = ?$

Ans

✗ A. 20

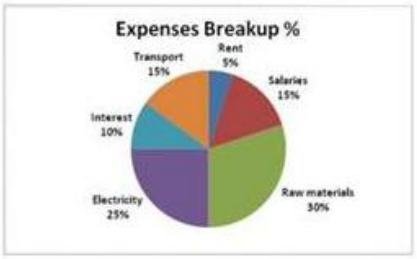
✗ B. 10

✗ C. 12

✓ D. 16

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Q.21 The pie chart shows the breakup in percentages of the various expenses of a Company. Study the diagram and answer the following question.



What is the interest expense if total expenses are ₹25,000 approximately?

Ans

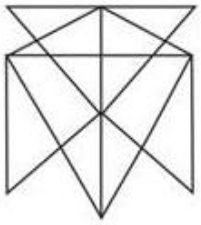
✗ A. ₹5,000

✗ B. ₹9,000

✓ C. ₹2,500

✗ D. ₹1,800

Q.22 What is the minimum number of lines required to make the given image?



Ans

✗ A. 10

✗ B. 9

✓ C. 11

✗ D. 12

Q.23 If G + H means G is daughter of H, G - H means G is sister H and G * H means G is husband of H, which of the following shows that I is the daughter of H?

Ans

✗ A. I - J * F + H

✓ B. I - J + F * H

✗ C. I + J - F * H

✗ D. I * J - F + H

Q.24 The ages of X and Y are in the ratio 4 : 7. Three years earlier, the ratio of their ages was 1 : 2. What is the difference between their current ages (Y - X)?

Ans

✗ A. 6

✗ B. 7.5

✗ C. 3

✓ D. 9

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Q.25 In a code language, 295 means 'water is liquid', 549 means 'oil is liquid' and 824 means 'oil on water'. Find the code for 'on'.

Ans

✗ A. 5

✗ B. 2

✓ C. 8

✗ D. 4

Q.26 In engineering drawing, the letters LH signifies _____.

Ans

✗ A. Low Heat

✓ B. Left Hand

✗ C. Level Hide

✗ D. Limit of Height

Q.27 Two resistors, one of 12 Ω and the other of 24 Ω are connected in parallel. This combination is connected in series with a 22 Ω resistor and a 12 V battery. The current in the 12 Ω resistor is_____.

Ans

✓ A. (4/15) A

✗ B. (2/15) A

✗ C. (6/15) A

✗ D. (8/15) A

Q.28 A sum of ₹2,000 was spent in buying a pair of trousers. The sum spent was 2/5th of the total money Shashi had with her. How much was the total money she had?

Ans

✓ A. ₹5,000

✗ B. ₹4,750

✗ C. ₹4,250

✗ D. ₹4,000

Q.29 Safety boots or shoes must be worn in designated areas to protect your _____ from falling objects.

Ans

✓ A. feet

✗ B. eye

✗ C. ear

✗ D. head

Q.30 What is the curved surface area of a hemisphere whose radius is 7 cm? (take $\pi = 22/7$)

Ans

✗ A. 154 cm^2

✗ B. 616 cm^2

✗ C. 924 cm^2

✓ D. 308 cm^2

Q.31 Which two signs should be interchanged to make the given equation correct?

$9 \div 3 + 8 \times 2 - 15 = 2$

Ans

✗ A. + and ×

✗ B. × and -

✓ C. + and -

✗ D. ÷ and -

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Q.32 If C $ D means C is daughter of D, C & D means C is mother of D and C % D means C is son of D, then what does W $ X & Y % Z mean?

Ans

✗ A. Z is daughter of W

✗ B. Z is wife of W

✗ C. Z is mother of W

✓ D. Z is father of W

Q.33 Where is the Headquarters of UNESCO located?

Ans

✗ A. Geneva

✗ B. New York City

✓ C. Paris

✗ D. Washington DC

Q.34 $\sec 45° - \tan 60° = ?$

Ans

✓ A. $-\sqrt{3} + \sqrt{2}$

✗ B. $\sqrt{3} + \sqrt{2}$

✗ C. $\frac{\sqrt{3}}{2}$

✗ D. $-\sqrt{3} - \sqrt{2}$

Q.35 What is the unit's digit in $3^{66} \times 6^{41} \times 7^{53}$

Ans

✗ A. 3

✗ B. 6

✓ C. 8

✗ D. 7

Q.36 You are given a question and two statements. Identify which of the statements is/are necessary/sufficient to answer the question.

Question: What was the discount percent offered on the soap by the store?
Statements:
I) The store is giving 1 soap free on purchase of three.
II) ₹10 discount is offered on purchase of soap worth ₹36.

Ans

✗ A. I alone is sufficient while II alone is not sufficient

✗ B. Neither I nor II is sufficient

✗ C. II alone is sufficient while I alone is not sufficient

✓ D. Either I or II is sufficient

Q.37 Name the painter of the famous painting, 'Mahishasura'.

Ans

✗ A. Amrita Sher-Gil

✗ B. MF Hussain

✗ C. Raja Ravi Verma

✓ D. Tyeb Mehta

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Q.38 A can do 2/5 of a work in 10 days. B can do ½ of the same work in 10 days. They worked together for 5 days and then A left. In how many days will B finish the remaining work?

Ans
- ✗ A. 8
- ✓ B. 11
- ✗ C. 10
- ✗ D. 9

Q.39 If $x = \sqrt{125} \times \sqrt{30} \times \sqrt{6}$, then x is equal to:

Ans
- ✓ A. 150
- ✗ B. 136
- ✗ C. 125
- ✗ D. 175

Q.40 The abbreviation AC in an engineering drawing stands for _____.

Ans
- ✗ A. Aerial Cut
- ✗ B. Attached Circle
- ✓ C. Across Corners
- ✗ D. Air Conditioning

Q.41 Given below is a question, followed by two arguments, I and II. You have to decide which of the given arguments, if any, is a strong argument, with respect to the question.

Question: Should advertisements be banned on television?

Argument I : Yes, advertisements are immoral.
Argument II : No, advertisements bring in revenue which helps reduce cost for viewers.

Ans
- ✓ A. Only argument II is strong.
- ✗ B. Neither I nor II is strong.
- ✗ C. Both I and II are strong.
- ✗ D. Only argument I is strong.

Q.42 Who was the first governor of the Reserve Bank of India?

Ans
- ✗ A. KR Puri
- ✗ B. HVR Iyengar
- ✗ C. Sir James Braid Taylor
- ✓ D. Sir Osborne A Smith

Q.43 A wire of length l and radius r has a resistance R. The resistance of another wire made of the same material but having half its length and half its radius will be ___.

Ans
- ✓ A. 2R
- ✗ B. R
- ✗ C. 4R
- ✗ D. R/2

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Q.44 If $\sin \Theta = 15/17$, then $\cot \Theta = ?$

Ans

✗ A. $\frac{15}{8}$

✓ B. $\frac{8}{15}$

✗ C. $\frac{8}{17}$

✗ D. $\frac{17}{15}$

Q.45 Two resistors of 2 Ω and 6 Ω are connected in series and this combination is connected across a 12 V battery. Find the current in the 6 Ω resistor.

Ans

✓ A. 1.5 A

✗ B. 0.5 A

✗ C. 2.5 A

✗ D. 3.5 A

Q.46 RK Narayan is famous for his book _____.

Ans

✓ A. Malgudi Days

✗ B. The Toom on the Roof

✗ C. Two Lives

✗ D. A Suitable Boy

Q.47 A number is as much greater than 50 as it is lesser than 84. What is the number?

Ans

✗ A. 66

✓ B. 67

✗ C. 65

✗ D. 68

Q.48 Select the option that is related to the third number in the same way as the second number is related to the first number.

-9/11 : 11/9 :: 13/2 : ?

Ans

✗ A. 3/7

✗ B. -7/3

✗ C. 2/13

✓ D. -2/13

Q.49 Tap M and N can together fill a cistern in 48/13 minutes. N alone can fill it in 6 minutes. How much time will M alone take to fill the cistern?

Ans

✓ A. 9.6 minutes

✗ B. 9.4 minutes

✗ C. 8.6 minutes

✗ D. 9 minutes

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Q.50 A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.
OOOOOX, OOOOXX, OOOXXX, OOXXXX, ?

Ans

✔ A. OXXXXX

✘ B. OOXXXX

✘ C. XXXXXX

✘ D. OOXXXXX

Q.51 Which of the following options does not have an SI base unit?

Ans

✘ A. Amount of substance

✘ B. Luminous intensity

✔ C. Frequency

✘ D. Electric current

Q.52 Given below are some letters, that each of these letters has a corresponding number. Select the combination of numbers from the options so that the jumbled letters arranged accordingly will form a meaningful English word.

H T R U O A
1 2 3 4 5 6

Ans

✘ A. 3,4,5,2,1,6

✘ B. 1,6,2,4,5,3

✘ C. 2,1,5,3,4,6

✔ D. 6,4,2,1,5,3

Q.53 Given below is a statement followed by two assumptions numbered I and II. You have to decide which of the assumptions is/are implicit in the statement.

Statement: The human body produces Vitamin D when exposed to sunlight.

Assumption I: The human body will have Vitamin D even if it is not consumed via food.
Assumption II: A large portion of the global population suffers from Vitamin D deficiency.

Ans

✘ A. Neither I nor II is implicit

✘ B. Both I and II are implicit

✘ C. Only assumption II is implicit

✔ D. Only assumption I is implicit

Q.54 A series is given, with one number missing. Choose the correct alternative from the given ones that will complete the series.

1.14, 1.28, 1.42, ?, 1.70, 1.84

Ans

✘ A. 1.68

✘ B. 1.62

✘ C. 1.54

✔ D. 1.56

Q.55 A 200 g block of iron was heated from 30°C to 60°C How much heat was transferred to the block (specific heat of iron is 450 $Jkg^{-1}K^{-1}$)?

Ans

✘ A. 270 J

✘ B. 6000 J

✔ C. 2700 J

✘ D. 27 J

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Q.56 A body starts from rest. Its displacement is proportional to _____ when its acceleration is constant.

Ans

✗ A. work

✗ B. velocity

✓ C. time squared

✗ D. time

Q.57 Substances that are broken down by biological processes are said to be _____.

Ans

✗ A. non-biodegradable

✗ B. non-reusable

✗ C. reusable

✓ D. biodegradable

Q.58 If $5050 \times 0.5x = 25250$, then $2505 \div x^2 = ?$

Ans

✗ A. 2.505

✗ B. 250.5

✓ C. 25.05

✗ D. 0.2505

Q.59 A brass rod (thermal conductivity 109 J/s m K) has an area of cross section 0.04 m^2 and length 20 cm. If the two end of the rod are maintained at a temperature difference of 200°C, the rate of heat flow through the rod is _____.

Ans

✗ A. 3.42 kJ/s

✗ B. 5.80 kJ/s

✓ C. 4.36 kJ/s

✗ D. 2.32 kJ/s

Q.60 If a body has a specific gravity of less than 1, then it will float in/on _____.

Ans

✗ A. liquids

✓ B. water

✗ C. air

✗ D. mercury

Q.61 Kuchipudi has its roots in which Indian State?

Ans

✗ A. Himachal Pradesh

✗ B. Arunachal Pradesh

✗ C. Kerala

✓ D. Andhra Pradesh

Q.62 What is the least number which when doubled is perfectly divisible by 7, 12 and 15?

Ans

✗ A. 220

✓ B. 210

✗ C. 214

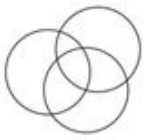
✗ D. 215

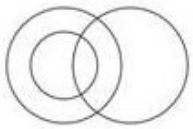
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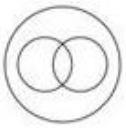
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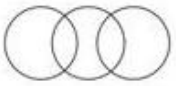
Q.63 Which of the following Venn diagrams best represents the relationship between Indians, doctors and women?

Ans

✔ A. 

✘ B. 

✘ C. 

✘ D. 

Q.64 If a machine overcomes a load '*L*' and the distance travelled by the load is '*Ld*', the work done by the load will be _____.

Ans

✘ A. $\frac{Ld}{L}$

✘ B. $\frac{1}{L \times Ld}$

✘ C. $\frac{L}{Ld}$

✔ D. $L \times Ld$

Q.65 Choose the figure that is different from the rest.

Ans

✘ A. 

✘ B. 

✔ C. 

✘ D. 

Q.66 A _____ is a theoretical exact plane, axis or point location that GD & T or dimensional tolerances are referenced to.

Ans

✘ A. flange

✔ B. datum

✘ C. section

✘ D. frame

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Q.67 Greater the value of _____ of a material, the more rapidly it will conduct heat.

Ans

✗ A. regelation

✓ B. thermal conductivity

✗ C. melting point

✗ D. latent heat

Q.68 It is mainly due to the gravitational effect of the _____ on the rotating earth that the level of water in the sea rises and falls.

Ans

✗ A. Venus

✗ B. Sun

✗ C. Mercury

✓ D. Moon

Q.69 A and B can do a work in 15 days, B and C can do the work in 20 days and A and C can do the work in 10 days. In how many days will they together complete the work?

Ans

✗ A. 10.71 days

✓ B. 9.23 days

✗ C. 10.91 days

✗ D. 10.67 days

Q.70 Molar specific heat capacity of a substance is _____.

Ans

✗ A. $\mu\left(\frac{\Delta T}{\Delta Q}\right)$

✗ B. $\mu\left(\frac{\Delta Q}{\Delta T}\right)$

✓ C. $\left(\frac{1}{\mu}\right)\left(\frac{\Delta Q}{\Delta T}\right)$

✗ D. $\left(\frac{1}{\mu}\right)\left(\frac{\Delta T}{\Delta Q}\right)$

Q.71 A machine was bought for ₹1,500 and a repairing charge of ₹100 was paid afterwards. At what price should it be sold to gain a profit of 25%?

Ans

✗ A. ₹1,960

✗ B. ₹2,040

✗ C. ₹1,920

✓ D. ₹2,000

Q.72 Select the option that is related to the third term in the same way as the second term is related to the first term.

Tall : Short :: Glad : ?

Ans

✗ A. Emotion

✓ B. Sad

✗ C. Smile

✗ D. Happy

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Q.73 Find the odd group of letters from the given alternatives.

Ans
- ✔ A. HJL
- ✘ B. VWX
- ✘ C. PQR
- ✘ D. EFG

Q.74 Which one of these is a harvest festival?

Ans
- ✘ A. Teej
- ✘ B. Deepawali
- ✔ C. Onam
- ✘ D. Janmashtami

Q.75 Unscramble the letters in the words given below and find the odd word out.

Ans
- ✘ A. ERTIG
- ✘ B. FLOW
- ✘ C. ILNO
- ✔ D. WCO

Q.76 If straight lines are drawn from various points on the contour of an object to meet a plane, the figure obtained on the plane is called the _____ of the object.

Ans
- ✘ A. development
- ✘ B. dimensioning
- ✔ C. projection
- ✘ D. animation

Q.77 I, J, K and L are sitting in a row. L and I are sitting next to each other and I and K are at the ends. Who is sitting next to J?

Ans
- ✘ A. L and I
- ✘ B. Only K
- ✔ C. K and L
- ✘ D. Only L

Q.78 How many medals did India win in Rio Olympics, 2016?

Ans
- ✘ A. 3
- ✔ B. 2
- ✘ C. 4
- ✘ D. 5

Q.79 A motorcycle travelled 1000 m at 36 km/hr. Find the time (in seconds) taken by the motorcycle to cover this distance.

Ans
- ✘ A. 400
- ✘ B. 200
- ✘ C. 300
- ✔ D. 100

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Q.80 A software program that has been developed to harm other computers is called a/an _____.

Ans

✔ A. malware

✗ B. operating system

✗ C. LAN

✗ D. server

Q.81 An article was sold for ₹12,000. Had a discount of 15% been offered, a profit of 2% would have been made. What was the cost price?

Ans

✗ A. ₹10,800

✔ B. ₹10,000

✗ C. ₹10,200

✗ D. ₹11,000

Q.82 Pipes A and B can fill a tank in 12 minutes and 16 minutes respectively. Both A and B are opened for 4 minutes and then A is closed. How much extra time will B take to fill the tank completely?

Ans

✗ A. 6 minutes

✗ B. $\frac{21}{4}$ minutes

✗ C. 7 minutes

✔ D. $\frac{20}{3}$ minutes

Q.83 Two resistors of 10 Ω and 20 Ω are connected in series and this combination is connected across a 30 V supply voltage. Find the voltage across the 10 Ω resistor.

Ans

✗ A. 5 V

✔ B. 10 V

✗ C. 20 V

✗ D. 15 V

Q.84 In angular measurements, one radian is equivalent to _____ degrees (approximately).

Ans

✗ A. 65.27

✗ B. 180

✔ C. 57.27

✗ D. 90

Q.85 An object starts from rest at x = 0 m and moves with a constant acceleration of 1.6 m/s^2 along the x-axis. During its journey from x = 12.8 m to x = 20.0 m, its average velocity will be_____.

Ans

✗ A. 2.4 m/s

✗ B. 8.8 m/s

✔ C. 7.2 m/s

✗ D. 3.6 m/s

Q.86 A car covers 400 m in 20 seconds. Find the average speed (in km/hr) of the car.

Ans

✗ A. 36

✔ B. 72

✗ C. 108

✗ D. 124

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Q.87 Reflection of point (-2, -6) on the Y-axis is:

Ans
- ✗ A. (-2, 6)
- ✗ B. (2, 6)
- ✗ C. (-6, -2)
- ✓ D. (2, -6)

Q.88 Name the scientist who discovered bacteria.

Ans
- ✗ A. James Chadwick
- ✗ B. Eugen Goldstein
- ✓ C. AV Leeuwenhoek
- ✗ D. Robert Koch

Q.89 A sum of ₹10,000 amounts to ₹11,449 in 2 years, when the interest is compounded annually. The interest rate percent per annum is:

Ans
- ✗ A. 6%
- ✗ B. 1%
- ✓ C. 7%
- ✗ D. 8%

Q.90 What is the work that needs to be done to increase the speed of a 1 kg ball from 2 m/s to 4 m/s?

Ans
- ✓ A. 6 J
- ✗ B. 12 J
- ✗ C. 10 J
- ✗ D. 8 J

Q.91 JPEG stands for _____.

Ans
- ✗ A. Joint Program Executing Group
- ✗ B. Joint Program Experimental Group
- ✗ C. Joint Program Experts Group
- ✓ D. Joint Photographic Experts Group

Q.92 The Ajanta Caves in Maharashtra feature paintings and sculptures that depict _____ tales?

Ans
- ✗ A. Maratha
- ✗ B. Islamic
- ✓ C. Buddhist
- ✗ D. Arabic

Q.93 Identify the material having low coefficient of volume expansion

Ans
- ✗ A. Aluminium
- ✓ B. Iron
- ✗ C. Brass
- ✗ D. Mercury

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Q.94 A salesperson starts from his office and drives 2 km east, then turns north and drives 7 km, then turns to his right and drives 6 km, then turns south and drives 7 km. Where is he now with respect to his starting position?

Ans

✔ A. 8 km east
✘ B. 4 km west
✘ C. 8 km west
✘ D. 4 km east

Q.95 If the width of a standard engineering drawing sheet is 841 mm, then its length would be _____ mm.

Ans

✘ A. 1250
✔ B. 1189
✘ C. 1216
✘ D. 1000

Q.96 A got ₹80 as his share of profit where the total profit was ₹240 and the ratio of profit distribution between A and B was x : 2. What is the value of x?

Ans

✔ A. 1
✘ B. 4
✘ C. 2
✘ D. 5

Q.97 Two resistors of 2 Ω and 6 Ω are connected in series and this combination is connected across a 12 V battery. Find the power supplied by the battery.

Ans

✘ A. 16 W
✘ B. 14 W
✔ C. 18 W
✘ D. 10 W

Q.98 The volume of a given amount of water _____ between 0° C to 4° C.

Ans

✔ A. decreases
✘ B. increases
✘ C. remains constant
✘ D. is zero

Q.99 An airplane flies at the speed of 50 m/s. How much distance (in km) will it cover in a flight of 5 hours?

Ans

✘ A. 895
✘ B. 850
✘ C. 880
✔ D. 900

Q.100 If a body is NOT homogeneous, then its density is a function of its _____.

Ans

✔ A. position
✘ B. acceleration
✘ C. pressure
✘ D. velocity

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Section : **Part B**

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Q.101 Vernier depth gauge is used for measuring

Ans

✗ A. Internal dimension

✓ B. Step, depth of blind hole

✗ C. Pitch circle diameter

✗ D. Round dimension

Q.102 Much of the heat in the exhaust gases may be recovered by the use of – Choose the correct option.

Ans

✗ A. Tail pipe

✗ B. Muffler

✗ C. Manifold

✓ D. Heat-exchanger

Q.103 In starting of diesel engines by electric starting what is used to supply power to the starter motor?

Ans

✗ A. Generator

✓ B. Battery

✗ C. Rectifier

✗ D. Dynamo

Q.104 A governor is a

Ans

✗ A. Temperature sensitive device

✗ B. Vacuum sensitive device

✓ C. Speed sensitive device

✗ D. Pressure sensitive device

Q.105 Air lock in fuel line will cause - Choose the correct answer.

Ans

✗ A. Injector pressure is too high

✓ B. Late starting and erratic running

✗ C. Engine idling high

✗ D. Excess delivery from FI pump

Q.106 The stroke of an engine is - Choose the correct answer.

Ans

✗ A. Length of the connecting rod

✗ B. Inside diameter of the cylinder

✗ C. Distance between t.d.c and b.d.c

✓ D. Volume of the cylinder

Q.107 In a diesel engine feed pump is located on - Choose the correct answer.

Ans

✓ A. F.I.P

✗ B. Fuel filter

✗ C. Cylinder head

✗ D. Fuel tank

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Q.108 What is the other name for Jenny spanners ?

Ans
- ✗ A. Inside caliper
- ✗ B. Odd-leg caliper
- ✗ C. Outside caliper
- ✓ D. Joint spanner

Q.109 Why is free play in clutch needed

Ans
- ✓ A. to prevent the clutch from heating up
- ✗ B. to improve efficiency of braking
- ✗ C. to facilitate lubrication by oil
- ✗ D. to increase speed of engine rpm

Q.110 Ammeter is used to measure - Choose the correct answer.

Ans
- ✗ A. resistance
- ✗ B. Power
- ✓ C. Current
- ✗ D. Voltage

Q.111 A depth micrometer can be used to measure _____.

Ans
- ✗ A. Length of the bore
- ✗ B. Thickness of the bore
- ✓ C. Diameter of bore
- ✗ D. Roundness of the bore

Q.112 The SI unit of pressure is - Choose the correct answer.

Ans
- ✓ A. Pascal
- ✗ B. Newton
- ✗ C. Joule
- ✗ D. Dyne

Q.113 Identify the the material used for twist drill.

Ans
- ✗ A. Mild steel
- ✗ B. Carbide steel
- ✗ C. Alloy steel
- ✓ D. H.S.S

Q.114 The connecting rod is made up of - Choose the correct answer.

Ans
- ✗ A. Cast iron
- ✗ B. Aluminium
- ✗ C. Mild steel
- ✓ D. Alloy steel

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Q.115 The diesel engine usually emits excessive smoke during – Choose the correct option.

Ans

✗ A. Idling

✗ B. Decelerating

✗ C. Starting

✓ D. Accelerating

Q.116 The operation of the governor can only be effective if the system is air tight which type of governor is this ?

Ans

✗ A. Hydraulic

✗ B. Servo

✗ C. Mechanical

✓ D. Pneumatic

Q.117 In diesel cycle combustion takes place at - Choose the correct answer.

Ans

✗ A. Constant volume

✗ B. Constant temperature and pressure

✗ C. Constant temperature

✓ D. Constant pressure

Q.118 Which one of the following fuel injection systems was originally used in large stationary and marine engines and is now seldom used?

Ans

✗ A. Solid injection

✗ B. Mechanical injection

✗ C. Airless injection

✓ D. Air injection

Q.119 Clearance between mating parts is measured by - Choose the correct option

Ans

✗ A. Caliper gauge

✗ B. Dial gauge

✓ C. Feeler gauge

✗ D. "Go" gauge

Q.120 Micrometer can measure upto _____

Ans

✓ A. Least count

✗ B. 0.005 mm

✗ C. 0.1 mm

✗ D. Microns size

Q.121 Higher efficiency can be achieved of an OTTO cycle by increasing the _____.

Ans

✓ A. compression ratio

✗ B. Cylinder size

✗ C. Fuel intake

✗ D. stroke length

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Q.122 Piston rings are generally made of-Choose the correct answer.

Ans
- ✗ A. Aluminium
- ✓ B. Cast iron
- ✗ C. Brass
- ✗ D. Copper

Q.123 Cyaniding and nitriding are two methods of - Choose the correct answer.

Ans
- ✗ A. Normalising
- ✓ B. Case hardening
- ✗ C. Tempering
- ✗ D. Hardening

Q.124 What is drawn in the cylinder of diesel engine during suction stroke?

Ans
- ✓ A. Pure air alone
- ✗ B. CNG gas
- ✗ C. A mixture of air and fuel
- ✗ D. Diesel

Q.125 A cutting tool used to finish and enlarge a hole is known as-Choose the correct answer.

Ans
- ✗ A. Die
- ✗ B. Drill
- ✓ C. reamer
- ✗ D. Tap

Q.126 When tolerance is given on one side of the basic dimension it is called - Choose the correct answer.

Ans
- ✗ A. Tolerance system
- ✓ B. Unilateral tolerance
- ✗ C. Bilateral tolerance
- ✗ D. Allowance system

Q.127 The principle of a radiator of an engine cooling system is to - Choose the correct answer.

Ans
- ✗ A. Acts as a reservoir for the water
- ✓ B. Spread out the hot water over a large area
- ✗ C. Increase the air speed as it flows over the hot surface
- ✗ D. Cause a heat flow by convection currents

Q.128 The instrument used to measure high temperature in the furnace is-Choose the correct answer.

Ans
- ✓ A. pyrometer
- ✗ B. Barometer
- ✗ C. Thermometer
- ✗ D. Colorimeter

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Q.129 Belt slackness is due to _____ - Choose the correct answer.

Ans

✗ A. Worn sprocket

✗ B. Worn chain

✓ C. Worn shaft

✗ D. Worn gear

Q.130 What is the material used for making Pistons?

Ans

✗ A. Galvanised Copper

✗ B. Steel

✓ C. Aluminum Alloy

✗ D. Brass

Q.131 What is the part of the universal surface gauge which helps to draw a parallel line along a dotted edge known as?

Ans

✗ A. Scriber

✓ B. Guide pins

✗ C. Fine adjusting screw

✗ D. Center punch

Q.132 Why is air cleaner filled with oil?

Ans

✗ A. To pressurize

✗ B. To accelerate

✓ C. To prevent dust and dirt from atmosphere

✗ D. To lubricate

Q.133 What is the principle on which brakes work?

Ans

✗ A. Dragging

✗ B. Vibration

✗ C. Suction

✓ D. Friction

Q.134 The air filters used in high speed diesel engines are generally of the type - Choose the correct answer.

Ans

✗ A. Impingement filters

✗ B. Heaters

✗ C. Dry filters

✓ D. Oil bath filters

Q.135 Wire gauge is a measurement of a wire's - Choose the correct answer.

Ans

✗ A. Hardness

✗ B. Tensile strength

✓ C. Diameter

✗ D. brittleness

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Q.136 A cutting tool used to cut outside threads is called - Choose the correct answer.

Ans
- ✗ A. Drill
- ✓ B. Die
- ✗ C. Reamer
- ✗ D. tap

Q.137 A maintenance free battery - Choose the correct answer.

Ans
- ✓ A. Has lead-calcium plate grid
- ✗ B. Does not contain water
- ✗ C. Has lead-antimony plate grid
- ✗ D. Does not contain acid

Q.138 A mechanism used to control the speed of an engine is called -Choose the correct answer.

Ans
- ✓ A. Governor
- ✗ B. Regulator
- ✗ C. Speedometer
- ✗ D. Odometer

Q.139 The purpose of dynamo is – Choose the correct option.

Ans
- ✗ A. Convert mechanical energy into electrical energy
- ✓ B. Continually recharge the battery
- ✗ C. Act as reservoir of electrical energy
- ✗ D. Supply electric power

Q.140 While using the vernier height gauge ,it must be placed on _____- Identify

Ans
- ✗ A. Vee block
- ✓ B. Surface plate
- ✗ C. Cylinder head
- ✗ D. Crank shaft

Q.141 The purpose of the injector provided on a diesel engine is to inject -Choose the correct answer.

Ans
- ✗ A. Lubricant in the cylinder
- ✓ B. Fuel in the cylinders
- ✗ C. Lubricant in the bearings
- ✗ D. Coolant in the cylinder jacket

Q.142 The angle of a drill bit is _____

Ans
- ✗ A. 118°
- ✗ B. 119°
- ✓ C. 59°
- ✗ D. 115°

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Q.143 What is the composition of Gun metal?

Ans

✗ A. Copper ,Zinc and nickel

✗ B. Lead and zinc

✓ C. Copper, Tin and zinc

✗ D. Lead and nickel

Q.144 A fuse in an electrical circuit 'blows' as a result of a high - Choose the correct option

Ans

✗ A. Voltage caused by a short circuit

✗ B. Voltage caused by an open circuit

✓ C. Current flow caused by a short circuit

✗ D. Current flow caused by an open circuit

Q.145 The tool, which is used for laying out diameter is

Ans

✓ A. Divider

✗ B. Scriber

✗ C. Outside micrometer

✗ D. Tri square

Q.146 Identify the instrument used for checking flatness and squareness of a surface?

Ans

✗ A. Centre punch

✗ B. Go Gauge

✗ C. Vernier height gauge

✓ D. Try square

Q.147 Scavenging is done to maintain - Choose the correct answer.

Ans

✗ A. Speed

✓ B. Power output

✗ C. Oil pressure

✗ D. Fuel consumption

Q.148 The study of pneumatics deals with systems operated with - Choose the correct answer.

Ans

✗ A. Solid material

✗ B. Oil

✓ C. Air

✗ D. Water

Q.149 The device, which is used to measure the brake power of an engine is called - Choose the correct answer.

Ans

✓ A. Dynamo meter

✗ B. Torque wrench

✗ C. Energy meter

✗ D. Indicator

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Q.150 The coolant used for reaming aluminum work piece is - Choose the correct option

Ans
- ✗ A. Water
- ✗ B. Lard oil
- ✗ C. Air pressure
- ✓ D. Kerosene

Q.151 The ratio between BHP and IHP is called - Choose the correct answer.

Ans
- ✗ A. Engine efficiency
- ✗ B. Thermal efficiency
- ✗ C. Power efficiency
- ✓ D. Mechanical efficiency

Q.152 To increase output voltage, battery cells are connected in - Choose the correct answer.

Ans
- ✓ A. Series
- ✗ B. Parallel
- ✗ C. Series-parallel
- ✗ D. inclined

Q.153 A lubricant oil is needed to run the machine_____

Ans
- ✗ A. With increased friction
- ✓ B. Without noise
- ✗ C. quickly
- ✗ D. With cleanliness

Q.154 Water circulation in a thermo-syphon cooling system is caused by-Choose the correct option

Ans
- ✗ A. Conduction currents
- ✗ B. A belt driven water impeller
- ✗ C. A gear driven water pump
- ✓ D. The change in density of the water

Q.155 A rivet is specified by the diameter of its-Choose the correct answer.

Ans
- ✗ A. Tail
- ✗ B. Head
- ✗ C. length
- ✓ D. Shank

Q.156 The vernier caliper is used for measuring-

Ans
- ✗ A. Roundness
- ✗ B. Flatness
- ✗ C. Shape
- ✓ D. Thickness

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Q.157 A hole is drilled between the crankshaft main journal and crank pin for - Choose the correct option

Ans

✔ A. Lubricating the connecting rod bearings

✘ B. Reducing crankshaft weight

✘ C. Balancing the crank shaft

✘ D. Reducing the crank shaft vibrations

Q.158 The instrument used to measure cylinder bore diameter is - Choose the correct answer.

Ans

✘ A. Vernier caliper

✔ B. Bore dial gauge

✘ C. Telescopic gauge

✘ D. Outside micrometer

Q.159 Which of the following are not symptoms of poor clutch operation

Ans

✔ A. increase in engine noise when pedal press

✘ B. Vibration of engine

✘ C. Difficulty in gear shifting when pedal press

✘ D. pedal gets stuck when pressed

Q.160 Which of the following is a part of the combination set?

Ans

✔ A. Socket spanners

✘ B. Square head

✘ C. Protractor head

✘ D. Steel rule

Q.161 The ignition condenser - Choose the correct option

Ans

✘ A. Increases contact arcing

✘ B. Protects plugs from load

✘ C. Reduces secondary spark

✔ D. Reduces arcing at contacts

Q.162 The rate of doing work is called - Choose the correct answer.

Ans

✘ A. Force

✘ B. Energy

✘ C. Torque

✔ D. Power

Q.163 The grooves provided on the entire length of the body of a twist drill are called - Choose the correct answer.

Ans

✘ A. Margins

✘ B. Lips

✔ C. Flutes

✘ D. webs

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Q.164 Air fuel mixture in a petrol engine is burnt in - Choose the correct answer.

Ans

✗ A. Piston

✗ B. Exhaust manifold

✗ C. Intake manifold

✓ D. Cylinder

Q.165 A noise produced in the cylinder of a diesel engine during combustion, usually when the fuel oil has a low ignition quality is called - Choose the correct answer.

Ans

✗ A. Fuel explosion

✗ B. Fuel burst

✓ C. Fuel knock

✗ D. Fuel thrust

Q.166 In diesel engine the fuel is ignited by - Choose the correct answer.

Ans

✗ A. A spark plug

✗ B. A glow plug

✓ C. Virtue of temperature of compressed air

✗ D. An injector

Q.167 The function of alternator in a vehicle is to - Choose the correct answer.

Ans

✓ A. Charge the battery

✗ B. Discharge the battery

✗ C. Measure the current

✗ D. Measure the voltage

Q.168 To measure the cylinder bore one of these instrument is used. Identify

Ans

✗ A. Screw gauge

✗ B. Caliper

✗ C. Micrometer

✓ D. Dial indicator

Q.169 The purpose of thermostat is to keep the engine - Choose the correct answer.

Ans

✓ A. At desired temperature

✗ B. Warm

✗ C. Hot

✗ D. Cool

Q.170 Indicated work per cycle is equal to - Choose the correct answer.

Ans

✓ A. Mean effective pressure x stroke volume

✗ B. Mean effective pressure x stroke length

✗ C. Mean effective pressure x bore arc

✗ D. Mean effective pressure x bore diameter

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Q.171 The electronic ignition system is triggered on and off through_____.

Ans
- ✗ A. Permanent magnet
- ✗ B. Diode
- ✗ C. Contact breaker
- ✓ D. Trigger

Q.172 The point angle of twist drill for general purposes is - Choose the correct answer.

Ans
- ✗ A. 90^0
- ✗ B. 60^0
- ✗ C. 135^0
- ✓ D. 118^0

Q.173 The drive for the diesel fuel feed pump is taken from the - Choose the correct option

Ans
- ✓ A. Fuel injection camshaft
- ✗ B. Engine camshaft
- ✗ C. Timing gears
- ✗ D. Crankshaft

Q.174 Identify the point angle of a Centre punch from the given options.

Ans
- ✗ A. 120^o
- ✗ B. 30^o
- ✓ C. 90^o
- ✗ D. 60^o

Q.175 An air chisel is used to brake or cut metal objects apart. How is it operated?

Ans
- ✗ A. Hydraulically
- ✓ B. Pneumatically
- ✗ C. Frictionally
- ✗ D. Magnetically

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