



JAMMU AND KASHMIR PUBLIC SERVICE COMMISSION

RESHAM GHAR COLONY, BAKSHI NAGAR, JAMMU - 180001

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Subject: Conduct of Written Examination for the post of Works Manager in Transport Department - Provisional Answer Key thereof.

Notification No. PSC/Exam/S/2024/26

Dated: 28.05.2024

In pursuance of Rule 10(c) of the Jammu & Kashmir Public Service Commission (Conduct of Examination) Rules, 2022, as amended upto date, the Provisional Answer Key of Question Paper pertaining to the **Written Test for the post of Works Manager** held on **28.05.2024**, is hereby notified for seeking objections from candidates:

Provisional Answer Key

Test Booklet Question No. (Series A)	
Q1	B
Q2	C
Q3	A
Q4	D
Q5	A
Q6	B
Q7	C
Q8	D
Q9	B
Q10	C
Q11	B
Q12	C
Q13	C
Q14	A
Q15	A
Q16	B
Q17	D
Q18	D
Q19	B
Q20	A
Q21	D
Q22	C
Q23	A
Q24	A
Q25	B
Q26	B
Q27	D
Q28	C

Test Booklet Question No. (Series A)	
Q29	D
Q30	B
Q31	C
Q32	D
Q33	A
Q34	B
Q35	C
Q36	C
Q37	B
Q38	A
Q39	D
Q40	A
Q41	B
Q42	D
Q43	C
Q44	A
Q45	A
Q46	B
Q47	C
Q48	D
Q49	A
Q50	B
Q51	A
Q52	C
Q53	B
Q54	C
Q55	B
Q56	A

Test Booklet Question No. (Series A)	
Q57	D
Q58	B
Q59	C
Q60	A
Q61	A
Q62	B
Q63	C
Q64	C
Q65	D
Q66	D
Q67	C
Q68	D
Q69	B
Q70	B
Q71	D
Q72	B
Q73	A
Q74	B
Q75	C
Q76	A
Q77	C
Q78	A
Q79	C
Q80	D
Q81	D
Q82	C
Q83	D
Q84	B

Test Booklet Question No. (Series A)	
Q85	A
Q86	B
Q87	A
Q88	A
Q89	C
Q90	B
Q91	D
Q92	D
Q93	A
Q94	B
Q95	A
Q96	C

Test Booklet Question No. (Series A)	
Q97	C
Q98	B
Q99	C
Q100	A
Q101	C
Q102	D
Q103	C
Q104	A
Q105	D
Q106	B
Q107	A
Q108	C

Test Booklet Question No. (Series A)	
Q109	B
Q110	B
Q111	A
Q112	D
Q113	C
Q114	B
Q115	C
Q116	D
Q117	A
Q118	B
Q119	B
Q120	D

The candidates are advised to refer to **Question Booklet (Series A)** to match the corresponding question(s) in their respective Question Booklet Series and if any candidate feels that the key to any of the question(s) is/are wrong, he/she may represent on prescribed format/proforma annexed as **Annexure-A** along with the documentary proof/evidence (**hard copies only**) and fee of Rs.500/- per question in the form of Demand Draft drawn in favour of **COE, J&K PSC** (refundable in case of genuine/correct representation) to the Controller of Examinations, Jammu & Kashmir Public Service Commission, from 29.05.2024 to 31.05.2024. **The candidates are further advised to clearly mention the question(s) objected to with reference to its serial number as it appears in the Question Booklet of Series A of the Provisional Answer Key.**

Further, any objection/application not accompanied by the requisite Demand Draft of Rs.500/- as prescribed, shall not be considered/entertained under any circumstances. Candidates are, in their own interest, advised to adhere to these instructions and not submit any objection unaccompanied by the Demand Draft as required under extant rules.

The Commission shall not entertain any such representation(s) after the expiry of the stipulated period i.e. **after 31.05.2024 (Friday), 05.00 pm.**

The provisional answer key is available on the website of the Commission <http://www.jkpsc.nic.in>.

28.05.2024

(G.L Sharma), JKAS
Additional Secretary

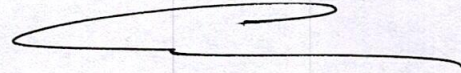
J&K Public Service Commission

Dated: 28.05.2024

No. PSC/Ex-Secy/2024/22
Copy to the: -

1. Director, Information and Public Relations, J&K for publication of the notice in all leading newspapers published from Jammu/Srinagar.
2. P.S. to Hon'ble Chairman, J&K Public Service Commission for information of the Hon'ble Chairman.

3. P.S. to Hon'ble Member, Shri _____ for information of the Hon'ble Member.
4. P. A. to Secretary, J&K Public Service Commission for information of the Secretary.
5. P.A. to Controller of Examinations, J&K Public Service Commission.
6. Main file/Stock file/Notice Board.

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line extending to the right.

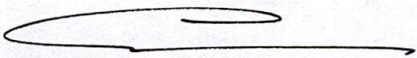
Annexure-A

Representation regarding objection(s) to any Question/Answer pertaining to the Written Test conducted for the post of Works Manager on 28.05.2024

(NOTE: USE SEPARATE FORMS FOR SEPARATE QUESTIONS)

Name of the Applicant : _____
Roll No. : _____
Correspondence Address : _____
Contact/Mobile No. : _____
Date of Application: _____ .05.2024
Demand Draft No. date : _____
Candidates Account No.(16 digit) & IFSC Code : _____

Question No. in Series A	Details of the Objection	Resource Material (copy to be enclosed)	Details of the Website (if any)
<u>Correct Answer/Option as per candidate :</u>			



Signature of the Candidate

Note: Application for each question/answer shall be made on separate page in the given format, otherwise the first question entered in the format shall only be considered.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

Booklet Serial No. **203597**

Test Booklet Series

**TEST BOOKLET
WORKS MANAGER
Written Test - 2024
(16)**

A

Time Allowed: Three Hours

Maximum Marks: 120

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer /Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside.
DO NOT write anything else on the Test Booklet.
4. This Test booklet contains **120** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer /Response Sheet provided. See directions in the Response Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer /Response Sheet, the response to various items in the Test Booklet, you have to fill in some particulars in the Answer /Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer /Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Response Sheet**.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. While writing Centre, Subject and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use **"ONLY BALL POINT PEN"**.
11. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE WRITTEN TEST (OBJECTIVE TYPE QUESTIONS PAPERS).
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **(0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

(16) (A)/2024

[P.T.O.]

503287

(16) (A)

(2)

1. Cristiano Ronaldo has no sense. The underlined word is a
 - A) Noun
 - B) Determiner
 - C) Adverb
 - D) Preposition

2. The phrase "A White Elephant" means:
 - A) Someone good and honest
 - B) Something gigantic
 - C) Something costly but not useful
 - D) Something unjust

3. Find the incorrect part of the sentence:
 - A) I have ordered for
 - B) Three cups
 - C) Of tea
 - D) No Error


4. "Her personality was too big and mercurial to be contained in a frail human body". Find the synonym of the underlined word.
 - A) Merciful
 - B) Agreeable
 - C) Pleasant
 - D) Volatile

5. "The question and the use of her name was sardonic". Find the synonym of the underlined word.
 - A) Mocking
 - B) Respectful
 - C) Reverential
 - D) Deferential

6. Fill in the blanks: "Christiano is playing-----the university."
 - A) in
 - B) at
 - C) on
 - D) from

7. Fill in the blanks: "-----football players learn very quickly."
 - A) A
 - B) Any
 - C) Some
 - D) Much

8. "Kangna is just sixteen and, therefore, not eligible to vote." The underlined word is a:
- A) Gerund
 - B) Conjunction
 - C) Adjective
 - D) Adverb
9. "Politicians these days are more interested in Playing to the gallery than exercising real influence on world events." the underlined idiom means:
- A) To do something alone
 - B) To say things that will make people admire you
 - C) To behave in a very annoying way
 - D) To play in the garden
10. On the day of the celebration, he had a frugal lunch. What would be the ANTONYM of the underlined word?
- A) Delicious
 - B) Meagre
 - C) Extravagant
 - D) Sparing
11. A "Conspicuity Marking" use:
- A) Light source connected to the vehicle
 - B) Light source not connected to the vehicle
 - C) Sunlight
 - D) Moonlight
12. "Protection Degree IPXXD" means
- A) Protection from backside collision
 - B) Protection from high-intensity light
 - C) Protection from contact with high voltage.
 - D) Protection from front collision
13. The "RECAS" signal, which warns the driver of a possible vehicle collision, expands to:
- A) Right End Collision Alert Signal
 - B) Reverse End Collision Alert Signal
 - C) Rear End Collision Alert Signal
 - D) Right Emergency Collision Alert Signal

14. The colour of "Emergency Stop Light" should be :
- A) Amber or Red
 - B) Blue or Red
 - C) Amber or Blue
 - D) Red or White
15. A transport inspector observed that the light coming out of the front lamp of a vehicle was shooting very high. In order to issue a penalty the transport engineer should look for which of these violations regarding vertical angles of the light:
- A) 15° above and below the horizontal
 - B) 25° above and below the horizontal
 - C) 35° above and below the horizontal
 - D) 45° above and below the horizontal
16. **"Lithium-Sulphur Battery"** is a type of
- A) Bunsen Cell
 - B) Rechargeable Battery
 - C) Chargeable Battery
 - D) It's not a Battery
17. The symbol is used for: 
- A) Fuel Overflow
 - B) Motoring Indicating Lamp
 - C) Motor Failure Lamp
 - D) Malfunction Indicator Lamp
18. Which of the following hybrid systems has the highest degree of hybridization:
- A) Micro Hybrid
 - B) Mild Hybrid
 - C) Full Hybrid
 - D) Plug-in Hybrid
19. Which of the following effect is utilized in pressure sensors:
- A) Seeback Effect
 - B) Piezoelectric Effect
 - C) Peltier Effect
 - D) Thomson Effect

20. Which of the following is **NOT** a function of a "DC Charging Station"?
- A) Locating DC charging portals
 - B) Energization of the system
 - C) De-energization of the system
 - D) Insulation test before charging
21. An air compressor can be driven by
- A) Electric Motor
 - B) Diesel Engine
 - C) Gasoline Engine
 - D) All the Above
22. Which of the following is **NOT** associated with "Spark Plug" maintenance:
- A) Sand Blast Cleaning
 - B) Gap Testing.
 - C) Piezoelectric Testing
 - D) All the above
23. What unit is used to indicate the tyre pressure of vehicles, typically?
- A) Pound force per square inch
 - B) Newton per square meter
 - C) Pascal
 - D) Bar
24. Vickers Hardness is used to measure:
- A) Micro or Macro Hardness
 - B) Micro or Nano Hardness.
 - C) Nano or Macro Hardness
 - D) Micro, or Macro, or Nano Hardness.

25. Select the one which is **NOT** a type of hardness scale:
- A) Knoop Hardness
 - B) Samwell Hardness
 - C) Brinell Hardness
 - D) Rockwell Hardness
26. Which of the following is TRUE for the "**Circular Runout**" measurement:?
- A) It does not require a datum
 - B) It requires a datum
 - C) It may or may not require datum
 - D) It is a profile type tolerance
27. Which of the following is a type of "Location Tolerance"?
- A) Flatness
 - B) Perpendicularity
 - C) Angularity
 - D) Symmetry
28. The "Digital Optical Tachometer" is a type of :
- A) Active Instrument
 - B) Invasive Instrument
 - C) Non-invasive Instrument
 - D) Deflection type Instrument.
29. Typically, the system of units used to present the tyre pressure of the vehicles is :
- A) MKS System
 - B) SI System
 - C) CGS System
 - D) FPS System
30. Determine the sensitivity of a voltmeter that generates a deflection of 24 mm for voltage of 6V
- A) 4 mm/V
 - B) 0.25 V/mm
 - C) 144 mm.V
 - D) 30 mm.V

31. The main alloying element in the "2000" series of Aluminium alloy is :
- A) Manganese
 - B) Silicon
 - C) Copper
 - D) Zinc
32. Which of the following is **NOT** a type of welding defect:
- A) Overlap
 - B) Underfill
 - C) Undercut
 - D) Uppercut
33. "Nail Penetration Test" is associated with
- A) Battery Safety
 - B) Engine Safety
 - C) Chassis Safety
 - D) All the above
34. In the NCM or Lithium Nickel Cobalt Oxide batteries, the "Nickel Cobalt Oxide" works as
- A) Anode
 - B) Cathode
 - C) Electrolyte
 - D) None of the above
35. Select the process which is **NOT** used for "Surface Hardening"
- A) Carburizing
 - B) Cyaniding
 - C) Annealing
 - D) Carbonitriding
36. Find the correct match:
- | Process | Impact |
|----------------|------------------|
| a. Tempering | 1. Strengthening |
| b. Quenching | 2. Toughening |
| c. Annealing | 3. Hardening |
| d. Normalizing | 4. Softening |
- A) a-1;b-2;c-3;d-4
 - B) a-4;b-3;c-2;d-1
 - C) a-2;b-3;c-4;d-1
 - D) a-3;b-2;c-1;d-4

37. Considering the atomic weight of 'Fe' as 56 and 'C' as 12, what would be the weight percentage of carbon in cementite (Fe_3C)?
- A) 9.12%
 - B) 6.67%
 - C) 3.25%
 - D) 1.25%
38. Select the crystal structure of Aluminium
- A) Face-Centered Cubic
 - B) Body-Centered Cubic
 - C) Closed-Packed Hexagonal
 - D) Body-Centered Tetragonal
39. The preferred method for the mass production of "Connecting rods" used in the engines of commuter segment motorcycles would be :
- A) Casting
 - B) 3D Printing
 - C) Moulding
 - D) Forging
40. The preferred material used to mass manufacture the "connecting rods" of a typical petrol engine is :
- A) Carbon or Alloy Steel
 - B) Cast Iron
 - C) Aluminium
 - D) Polymer.
41. If a "Flex-Fuel Engine" is running on 4% biodiesel, the reference fuel for the OBD system should be :
- A) 4% Biodiesel Blend
 - B) Diesel
 - C) Gasoline
 - D) 96% diesel
42. In general, during idling , starting, and low-speed operation, the air-fuel mixture supplied by the carburettor is :
- A) Lean
 - B) Stoichiometric
 - C) Slightly leaner than stoichiometric
 - D) Rich

43. For a break power of 5 kW and shaft speed of 200 rpm, the torque produced would be :
- A) 40 N.m
 - B) 10 N.m
 - C) 25 N.m
 - D) 5 N.m
44. A 352 cc engine has a bore of 80 mm, its stroke length should be :
- A) 70 mm
 - B) 60 mm
 - C) 50 mm
 - D) 40 mm
45. In the "Spark Ignition(SI)" Engine, the **Knocking** may occur:
- A) Towards the end of the combustion
 - B) At the start of combustion
 - C) Near Top Dead Center (TDC)
 - D) Near Inner Dead Center (IDC)
46. What would be the Otto cycle efficiency for a compression ratio of 20 (consider the ratio of specific heats as two, $k=2$)
- A) 70%
 - B) 80%
 - C) 90%
 - D) None of the above.
47. The function of "Squish" in IC Engines is :
- A) To ignite the charge
 - B) To enhance stroke length
 - C) To enhance the mixing
 - D) None of the Above.
48. Which of the following is **NOT** a function of a **Bearing**.
- A) Act as Coolant
 - B) Protection from Corrosion
 - C) Reduce Friction
 - D) Transfer Torque


49. A high **Cetane Number** fuel will lead to :
- A) Small Ignition Delay
 - B) Large Ignition Delay
 - C) The Ignition Delay will depend on rpm
 - D) None of the above
50. In relevance to IC Engine, the term "**CRDI**" means:
- A) Common Rail Direct Ignition
 - B) Common Rail Direct Injection
 - C) Countless Rail Direct Injection
 - D) Central Rail Direct Injection
51. For the tyre "215/65 R 15 95 H", the letters "**R**" and "**H**" represent:
- A) Radial Ply Tyre and Speed Rating
 - B) Radial Ply Tyre and Height
 - C) Radius of Tyre and Height
 - D) Radius of Tyre and Speed Rating
52. If a **BUS** can facilitate seating of a maximum 50 passengers, it would fall under the category of :
- A) Midi Bus
 - B) Mini Bus
 - C) Standard Bus
 - D) High Capacity Bus
53. The **unladen kerb mass** of the vehicle does **NOT** include:
- A) Fuel
 - B) Driver
 - C) Spare Wheel
 - D) Coolant and Lubricant
54. A "Mini Bus" can have seating layouts of :
- A) Both, 3×2 and 2×2
 - B) Both, 3×2 and 2×1
 - C) Both, 2×2 and 2×1
 - D) Only 2×1


55. How much Rolling Resistance a 500 kg vehicle would have while moving at a 60° slope with a speed of 60 km/h. Consider the total coefficient of rolling resistance as 0.012
- A) 58.8 N
 - B) 29.4 N
 - C) 117.6 N
 - D) 78.9 N
56. Which of the following is true for a "Space-Frame Chassis"?
- A) Members carry the load in tension and compression only, mostly
 - B) Members carry the load in bending and compression only, mostly
 - C) Members carry the load in tension and bending only, mostly
 - D) None of the above
57. In vehicle safety guidelines for head injury, Head Injury Criteria (HIC) is used as standard. Considering the same, the HIC-15 means:
- A) Impact measured over 15 g
 - B) Impact measured over 15 minutes
 - C) Impact measured over 15 seconds
 - D) Impact measured over 15 milliseconds
58. According to AIS-145, the number of airbags mandatory for M1 category vehicles are:
- A) 1 for driver only
 - B) 2 for driver and co-passenger
 - C) 6 for driver and all the passengers
 - D) None of the above
59. If a member of the chassis is subjected to a tensile load of 25 kN, what would be the stress-induced if its cross-sectional area is 25 square meter.
- A) 625 kPa
 - B) 625 bar
 - C) 1000 Pa
 - D) 1000 bar
60. In a typical chassis, the "upswept" at the rear:
- A) Allow vertical movement of the rear axle
 - B) Allow rear wheel installation
 - C) Allow rear brakes installation
 - D) None of the above

61. The "Steering Ratio" is a ratio of
- A) Steering wheel angle rotation to steer angle movement of the wheel
 - B) Steering wheel angle rotation to steer angle movement of Kingpin angle
 - C) Steering wheel angle rotation to steer angle movement of the Pitman arm.
 - D) Kingpin angle rotation to steer angle movement of the wheel.
62. In a typical vehicle, if the disturbance on one wheel does not impact the partner wheel, the type of suspension system called:
- A) Dependent System
 - B) Independent System
 - C) Live Axle System
 - D) Solid Axle System
63. "Understeering" would lead to :
- A) No change in slip angle at the front wheel
 - B) Small slip angle at the front wheel
 - C) Large slip angle at the front wheel
 - D) Small slip angle at the rear wheel
64. Determine the engine speed of a car running at 72 km/h if the engine gearbox ratio is 1:1, the final drive ratio is 3, and the tyre rolling radius is 350 mm
- A) 2400 rpm
 - B) 2100 rpm
 - C) 1800 rpm
 - D) 1500 rpm
65. A "Double Wishbone Suspension System" can be categorised as :
- A) Variable Suspension System.
 - B) Semidependent Suspension System
 - C) Dependent Suspension System
 - D) Independent Suspension System
66. In the case of intersecting transmission shaft, which of the following gears should be used:
- A) Spur Gear
 - B) Helical Gear
 - C) Double Helical Gear
 - D) Bevel Gear

67. For a Helical Gear Train System, the bearing used should be able to withstand:
- A) Only axial load
 - B) Only radial load
 - C) Both axial and radial load
 - D) No load is transferred on the bearings
68. A 1000 kg vehicle is going uphill at an inclination angle of 30° ; the gradient resistance would be :
- A) 9.8 kN
 - B) 7.8 kN
 - C) 3.4 kN
 - D) 4.9 kN
69. The "DCT" transmission implies:
- A) Direct Contact Transmission
 - B) Dual Clutch Transmission
 - C) Direct Connect Transmission
 - D) Dual Connect Transmission
70. Fill in the blanks: "According to IS 14664:1999 for the breaking test of a four -wheeler, the unladen vehicle should stop within a distance of ----when brakes are applied at 30 km/h"
- A) 15 m
 - B) 13 m
 - C) 10 m
 - D) 8 m
71. What would be the Reynolds Number of the flow moving at a velocity of 1 m/s through a pipe of 1 mm? Take water density as 1000 kg/m^3 and dynamic viscosity as 0.001 Ns/m^2 .
- A) 1000000; Turbulent Flow
 - B) 1000000; Laminar Flow
 - C) 1000, Turbulent Flow
 - D) 1000; Laminar Flow
72. "Pressure" is a/an
- A) Extensive Property
 - B) Intensive Property
 - C) Both Extensive and Intensive Property
 - D) Not a Property

73. The "Pycnometer" is used for measuring
- A) Density
 - B) Viscosity
 - C) Surface Tension
 - D) Pressure
74. Viscosity of gases:
- A) Decrease with Temperature
 - B) Increase with Temperature
 - C) Does not depend on Temperature
 - D) Behaves similar to liquids with respect to Temperature
75. Which of the following property leads to "Capillary Rise and Fall"
- A) Viscosity
 - B) Density
 - C) Surface Tension
 - D) Pressure
76. In a Hydro Power Plant, if the water head is HIGH, the preferred turbine to generate electricity would be :
- A) Impulse Turbine
 - B) Kaplan Turbine
 - C) Radial Flow Turbine
 - D) All the Above
77. Which of the following is an example of a fluid coupling:
- A) Direct Synchronous Gearbox (DSG)
 - B) Dual Clutch Transmission (DCT)
 - C) Torque Converter
 - D) Continuous Variable Transmission (CVT)
78. In relevance to the Pascal's Law, if a fluid is at rest, then at a given point:
- A) Pressure will be same in all the directions
 - B) Pressure will be less than atmospheric pressure, always
 - C) Pressure will be a function of surface tension
 - D) Pressure will be a function of viscosity.

79. Water is flowing through a duct of cross-section having width 200 mm and height 300 mm. What would be the characteristic dimension to calculate the Reynolds Number:
- A) 500 mm
 - B) 360.5 mm
 - C) 240 mm
 - D) 138.2 mm
80. For maximum power output from a Pelton Turbine, the ratio of bucket speed to the water jet should be :
- A) 2
 - B) 0
 - C) 1
 - D) 0.5
81. Which of the following places is **NOT** covered under the proposed "Parvatmala Pariyojana"
- A) Shivkhori (J and K)
 - B) Shankaracharya Temple (J and K)
 - C) Leh Palace (Ladakh)
 - D) Vaishno Devi (J and K)
82. What is the legal age to drive a vehicle having engine capacity of 45 cc:
- A) 18 Years
 - B) 17 Years
 - C) 16 Years
 - D) 15 Years
83. The maximum permission width for a construction vehicle while it is driving on the road is
- A) 2.4 m; excluding rear-view mirror
 - B) 2.6 m; excluding rear-view mirror
 - C) 2.8 m; excluding rear-view mirror
 - D) 3.0 m; excluding rear-view mirror
84. Following sign indicate: 
- A) Two-Way Crossing
 - B) Priority for Oncoming Traffic
 - C) Interchange
 - D) Drive Left

85. According to CMVR, an "Adapted Vehicle" is designed especially for :
- A) Persons with Disability
 - B) Elders: older than 60 years
 - C) Young Adults; less than 16 years
 - D) Women
86. A Vehicle is running at a speed of 125 km/h, on applying the brake, it must stop within a distance of :
- A) 143 m
 - B) 87 m
 - C) 63 m
 - D) None of the above
87. In relevance to the Central Motor Vehicle Act (CMVR), the "**Golden Hour**" means
- A) First one hour for prompt medical attention after an accident
 - B) First one hour to buy a newly launched vehicle at discounted price
 - C) First one hour to claim the insurance after an accident
 - D) None of the Above.
88. Following traffic sign indicate: 
- A) Give Way
 - B) No Entry
 - C) Three Way Entry
 - D) Round about
89. Which of the following vehicles falls under the "**Category-M**" vehicles:
- A) Passenger carrying 2-Wheelers
 - B) Goods carrying 2-Wheelers
 - C) Passenger carrying 4-Wheelers
 - D) Goods carrying 4-Wheelers
90. If a traffic sign is in "BLUE CIRCLE", then it's a/an
- A) Optional Instruction
 - B) Mandatory Instruction
 - C) Informational Sign
 - D) All the Above

91. For private vehicles renewal of registration is mandatory after 15 years; this renewed registration would have a validity of.
- A) 1 Year
 - B) 2 Years
 - C) 3 Years
 - D) 5 Years
92. Which of the following work is **NOT** done by the "Ministry of Road, Transport and Highways (MORTH)"
- A) Construction of Highways
 - B) Construction of Ropeways
 - C) Installation of Optical Fibers
 - D) Construction of Waterways.
93. NHA recently achieved the Guinness World Record for constructing a "75 km continuous Single-lane Bituminous Concrete Road in a record time of 105 hours 33 minutes". It is located in the state of :
- A) Maharashtra
 - B) Uttar Pradesh
 - C) Gujarat
 - D) Haryana
94. Which of the following portals is used for "Digital Land Acquisition" notification process by MORTH
- A) Bhoomi Money
 - B) Bhoomi Rashi
 - C) DLA-Rashi
 - D) DLA-Money
95. "**Bharatmala**" project is related to :
- A) Construction of Road & Highways
 - B) Construction of Vehicle Industry
 - C) Construction of Waterways
 - D) All the Above.

96. Which of the following states /UTs does not have the "**BH Series**" vehicle registration:
- A) Jammu and Kashmir
 - B) Madhya Pradesh
 - C) Tamilnadu
 - D) Maharashtra
97. The speed of the motorcycle carrying children below 4 years of age is limited to
- A) 20 km/h
 - B) 3 km/h
 - C) 4 km/h
 - D) 5 km/h
98. The standard "**ISO 39001**" is related to
- A) Design of roads and highways
 - B) Management of the road traffic
 - C) Design of electric vehicles
 - D) Battery management system.
99. Fill in the blanks: "Under the Parvatmala Project, the MORTH is building:
- A) Trains in the hilly areas
 - B) Roads in the hilly areas
 - C) Ropeways in the hilly areas
 - D) Waterways in the hilly areas
100. Past 2020, which of the following is **NOT** mandatory for the newly manufactured vehicles:
- A) Tyre Pressure Monitoring System
 - B) Reverse Parking Sensor
 - C) Over-Speed Warning
 - D) None of the above
101. The noise from a three-wheeler fitted with 200 cc engine, should be limited to
- A) 75 dB
 - B) 77 dB
 - C) 80 dB
 - D) 100 dB
102. Which of the following is **NOT** true for a **LPG** based two wheeler vehicle:
- A) Gaseous pollutant test is mandatory
 - B) Crankcase emission test is mandatory
 - C) Idle emission test is mandatory
 - D) Evaporative emission test is mandatory

103. In two-wheelers, **OBD-II** and **OBD-I** differ due to presence of
- A) Circuit continuity for emission related power train component
 - B) Distance travelled
 - C) Catalytic converter monitoring
 - D) EGR system monitoring
104. What is the total time consumed in the "**Modified Indian Driving Cycle**"
- A) 1180 sec
 - B) 1080 sec
 - C) 980 sec
 - D) 880 sec
105. If a two-wheeler manufacturer produces more than 150000 in six months, the number of samples for "**Conformity of Production (COP)**" should be
- A) 12
 - B) 9
 - C) 6
 - D) 3
106. The "Regeneration of Diesel Particulate Filter (DPF)" means:
- A) Cleaning the DPF with ethanol or other evaporating liquids
 - B) Burning the soot collected in the filter at high temperature
 - C) Regeneration of chemicals used to trap soot.
 - D) Replacing the wire mesh of the DPF.
107. The NO_x storage catalyst stores the NO_x while the engine is running.
- A) Lean
 - B) Rich
 - C) Stoichiometric
 - D) Storage is independent of operation
108. Which of these is not an automotive pollutant:
- A) CO
 - B) NO_x
 - C) CFCs
 - D) HC

109. Which of the following is most likely to emit high soot emission:
- A) Spark Ignition (SI) Engine
 - B) Compression Ignition (CI) Engine
 - C) CNG Engine
 - D) All the above
110. The EGR is used to achieve low-temperature combustion that may reduce NO_x emission. The EGR is :
- A) Exhaust Gasoline Recirculation
 - B) Exhaust Gas Regeneration
 - C) Exhaust Gasoline Regeneration
 - D) Exhaust Gas Recirculation
111. "**PERT**" expands to :
- A) Program Evaluation Review Technique
 - B) Program Exam Review Technique
 - C) Process Exam Review Technique
 - D) Process Evaluation Review Technique
112. On an Operation Process Chart, the assembly activity is represented by the symbol:
- A) □
 - B) A
 - C) D
 - D) O
113. Fill in the blanks: "In a PERT analysis, the critical activity has-----."
- A) Maximum Cost
 - B) Minimum Cost
 - C) Zero Float
 - D) Maximum Float
114. Forecasting demand using "Simple Moving Average" one should
- A) Give equal weight to all demand data
 - B) Include new demand data in the average after discarding some of the earlier demand data.
 - C) Include new demand data in the average without discarding the earlier data.
 - D) Assign more weight to the recent demand data.

115. Which of the following methods takes a fraction of forecast error into account for the next period forecast:
- A) Weighted Moving Average Method
 - B) Simple Average Method
 - C) Exponential Moving Average Method
 - D) Moving average Method
116. Which of the following techniques uses "Criticality of the Item" as the basis for inventory management.
- A) p system
 - B) q system
 - C) ABC Analysis
 - D) VED Analysis
117. The Condition when the "Sales Revenue" and the "Total Cost" are equal is known as
- A) Break-Even Point
 - B) Break-Even Profit
 - C) Limit of Profit Generation
 - D) Limit of Revenue Generation.
118. During aggregate production planning, which of the following decision is **NOT** taken:
- A) Inventory to be carried forward
 - B) Scheduling of the machines
 - C) Amount of labour to be committed
 - D) Rate at which production should happen
119. The "Vehicle Manufacturing Assembly Line" can be considered as an example of :
- A) Process Layout
 - B) Product Layout
 - C) Fixed Layout
 - D) Manual Layout
120. In Acceptance Sampling, if a person is inspecting 100% items of a rejected lot, then the person is applying
- A) Single Sampling Technique
 - B) Double or Multi Sampling Technique
 - C) Sequential Sampling Technique
 - D) Rectified Sampling Technique.

ROUGH WORK

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