

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

23-0005-AB

TEST BOOKLET
PAPER-II
MECHANIC MOTOR VEHICLE

Time Allowed: 1 hr

Maximum Marks: 50

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 08 (eight) pages and has 50 (fifty) questions.
2. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use only Black Ball Point Pen to fill the OMR Answer Sheet.
6. Each question comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR Answer 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.
7. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the OMR Answer Sheet*. You are permitted to take the Test Booklet with you.
8. Penalty for wrong answers in case of Multiple Choice based Questions:
THERE WIL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.
 - (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, one-third of the marks assigned to the 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 to the 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.

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MECHANIC MOTOR VEHICLE

Choose the correct answer for the following questions: (1 x 50 = 50)

1. Choose the hatchback vehicle combination
 - (a) Tata Indica Vista and Tata indigo
 - (b) Maruti suzuki 800, Maruti Alto and Swift dzire
 - (c) Maruti Alto and Tata Indica Vista
 - (d) None

2. Welding, which is commonly used for body manufacturing of vehicle?
 - (a) TIG welding
 - (b) Resistance welding
 - (c) Spot welding
 - (d) None

3. Firing order of 4 cylinder inclined vehicle engines can be
 - (a) 1-2-3-4
 - (b) 1-3-2-4
 - (c) 1-2-4-3
 - (d) none

4. Choose the correct statement about torque tube drive.
 - (a) Both end of torque tube drive is shackled
 - (b) Based on fixed distance
 - (c) One end of torque tube drive is fixed on differential end
 - (d) All of the above

5. Choose the MUV combination.
 - (a) Mahindra Bolero and Mercedes SL class
 - (b) Toyota Innova and Tata safari
 - (c) Mahindra Quanto and Mahindra Bolero
 - (d) Tata Sumo and Mahindra Bolero

6. A brake commonly used in motor cars is.....
 - (a) Band and block brake
 - (b) Internal expanding brake
 - (c) External expanding brake
 - (d) None

7. Rear Wheel Drives
 - (a) Less interior space
 - (b) Weight is less
 - (c) Even weight distribution
 - (d) a and c

8. There are two vehicles with 1 cylinder and 4 cylinders. Which will require a heavier flywheel?
 - (a) 1-cylinder
 - (b) 4-cylinder
 - (c) Both
 - (d) both requires same flywheel

9. In 4cylinder Engine after every.....rotation of crank there is firing in any one of cylinder
- (a) 180
 - (b) 120
 - (c) 240
 - (d) 360
10. Distributer is used for which of following requirement in coil ignition system of an I.C engine
- (a) To distribute current
 - (b) To distribute power
 - (c) To distribute voltage
 - (d) Time
11. Manufacturers of passenger cars and Heavy duty vehicle is
- (a) Premier Automobile
 - (b) Maruti
 - (c) Telco
 - (d) DCM Toyota
12. Qualitative governing is implemented in
- (a) C.I. engine
 - (b) S.I engine
 - (c) Dual cycle
 - (d) All of the above
13. Which of the following represent light oil?
- (a) Hydrocarbons with 6 to 15 carbon atoms
 - (b) Hydrocarbons more than 6 carbon atoms
 - (c) Hydrocarbons more than 12 carbon atoms
 - (d) Hydrocarbons with 16 to 26 carbon atoms
14. Number of factors on which cylinder liner depends
- (a) 2
 - (b) 5
 - (c) 6
 - (d) 3
15. Which of following effect brake thermal efficiency?
- (a) Mass of fuel supplied
 - (b) C.V
 - (c) BHP
 - (d) a and b
16. Brake fade is
- (a) Loss of coefficient of friction
 - (b) Loss of hydraulic fluid
 - (c) Loss of pedal
 - (d) none
17. Choose the correct statement about hotchkiss drive
- (a) Both ends of hotchkiss drive are shackled
 - (b) No Ball socket joint is used
 - (c) Based on fixed distance
 - (d) All

18. Carburetor is used in
- (a) CI engine
 - (b) SI engine
 - (c) Diesel engine
 - (d) None
19. Choose the wrong statement about Supercharging
- (a) Increase consumption of lubricating oil
 - (b) Increase power output when greater power is required
 - (c) Both
 - (d) None
20. Which of the following is steel spring?
- (a) Hydraulic spring
 - (b) Coil spring
 - (c) Steel reinforced springs
 - (d) all
21. Correct statements about coil spring
- (a) Take shear and bending stresses
 - (b) Only shear stress
 - (c) Only bending stress
 - (d) Take side thrust
22. Choose the correct statement.
- (a) Strength of air spring is more than mechanical spring
 - (b) Spring constant of air spring cannot change
 - (c) Both are true
 - (d) None
23. Choose the correct statement.
- (a) Hydraulic suspension may create comfortable driving
 - (b) Cost of hydraulic suspension is high
 - (c) Both are true
 - (d) None
24. In SI engine, if diesel is used then
- (a) Engine will not run
 - (b) Engine will run more efficiently
 - (c) There will be no effect
 - (d) trouble shooting will occur
25. Common parts in manual and power steering systems are
- (a) Steering column only
 - (b) Steering shaft
 - (c) None
 - (d) a and b both
26. Which of the following statements about coil spring is not correct?
- (a) Less noise problem
 - (b) Take side thrust
 - (c) Both
 - (d) None

27. Try square is used to
- (a) Check flatness
 - (b) Check squareness of job
 - (c) Set job at right angle
 - (d) All
28. Which of the following pliers is used in fitting shop mostly?
- (a) Slip joint pliers
 - (b) Needle nose pliers
 - (c) Cutting pliers
 - (d) all
29. The event, which would reduce volumetric efficiency of a vertical C.I. engine
- (a) Inlet valve closing after bottom dead centre
 - (b) Inlet valve closing before bottom dead centre
 - (c) Both (a) and (b)
 - (d) None
30. Manufacturers of motor cycle as well as tractors is
- (a) Bajaj Auto ltd
 - (b) Mahindra and Mahindra
 - (c) Kelvinator, India
 - (d) None
31. Manufacturers of passenger as well as commercial vehicle is
- (a) Telco
 - (b) Hyundai motors
 - (c) Mahindra and Mahindra
 - (d) Bajaj Tempo
32. A supercharged engine as compared to normal engine will
- (a) Be Lighter
 - (b) Consume less lubricating oil
 - (c) Require smaller foundation
 - (d) all
33. Arrangement of valve in cylinder head assembly may be in
- (a) Overhead engine
 - (b) I head engine
 - (c) F head engine
 - (d) a and b
34. Heat transfer from piston to cylinder wall is done by
- (a) Compression ring
 - (b) Oil control ring
 - (c) Both
 - (d) gudgeon pin
35. Brake power is obtained on
- (a) Camshaft
 - (b) Piston
 - (c) Crankshaft
 - (d) None

36. Mist lubricating system is also called
- (a) Petrol lubricating
 - (b) Wet sump lubricating
 - (c) Dry sump lubricating
 - (d) None
37. If a multi-cylinder and single cylinder engine develop same power, then
- (a) Their stroke diameter is same
 - (b) Their swept volume is same
 - (c) They have same swept length
 - (d) Power do not depend on any of above
38. Heavier flywheel is required in which of the following?
- (a) 2-s engine
 - (b) 4-s engine
 - (c) Multi-cylinder engine
 - (d) Single cylinder engine
39. Advantage of multi-cylinder engine over single cylinder is
- (a) Low thermal stresses
 - (b) Low loss of fuel
 - (c) Both
 - (d) None
40. Reference fuels used for cetane rating are
- (a) Cetane and iso-octane
 - (b) cetane and alpha -methyl naphthalene
 - (c) cetane and normal heptanes
 - (d) cetane and tetra ethyl lead
41. Advancing of the spark timing in SI engine will.....the knocking tendency.
- (a) Not affect
 - (b) Decrease
 - (c) Increase
 - (d) None of these
42. Anti-knock for compression ignition engines is
- (a) Napthene
 - (b) Tetra ethyl lead
 - (c) Amyl nitrate
 - (d) Hexadecane
43. Which of the following are not automobiles?
- (a) Passenger cars
 - (b) aeroplanes
 - (c) Ships
 - (d) Ships and aeroplanes
44. Condition for a vehicle to be considered as an automobile
- (a) Should move on the road
 - (b) Moving medium may vary
 - (c) Should be self-propelled
 - (d) a and c

45. Which of the following statements are correct?
- (a) A four stroke cycle engine develops twice the power as that of a two stroke cycle engine
 - (b) For the same power developed, a four stroke cycle engine is lighter, less bulky and occupies less floor area
 - (c) The petrol engines are costly than diesels engines
 - (d) None
46. The scavenging efficiency of a four stroke cycle diesel engine is
- (a) Between 95 and 100%
 - (b) Between 50 and 85 %
 - (c) Below 50 %
 - (d) Between 85 and 95 %
47. The voltage required to produce a spark across the gap between the sparking points is
- (a) 10000 to 12000 volts
 - (b) 2000 to 4000 volts
 - (c) 6000 to 10000 volts
 - (d) 4000 to 6000 volts
48. Right hand drive is likely used in
- (a) India
 - (b) USA
 - (c) Australia
 - (d) None
49. FWD and RWD classification is based on
- (a) Engine location
 - (b) Engine type
 - (c) Driving system
 - (d) None
50. Non independent suspension
- (a) Are strong
 - (b) Support heavy load
 - (c) Both
 - (d) None
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Space for rough work