

967**October 2018**

Time – Three hours
(Maximum Marks: 75)

*IN.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory.
Answer any FOUR questions from the remaining in each PART – A
and PART – B*

(2) Answer division (a) or division (b) of each question in PART – C.

*(3) Each question carries 2 marks in PART – A, 3 marks in Part – B
and 10 marks in PART – C.]*

PART – A

1. Define thermal efficiency.
2. What is a firing order?
3. Why pre- heat is needed?
4. What are the types of magneto?
5. What is the use of alternate air systems?
6. State a couple of uses of acoustic panels.
7. Give three differences between engine mounts and vibration mounts.
8. What are the criteria for engine inspection?

PART – B

9. Explain volumetric efficiency with formula.
10. Explain compression ratio and give its importance.
11. What are starting systems?
12. Explain spark plugs with their uses.
13. Write a note on exhaust system.
14. What are the tolerance factors for engine inspection?
15. What are the data that will be mentioned by engine manufacturer?
16. Write about wiring looms.

[Turn over.....

PART - C

17. (a) (i) Explain the operating principle of a 2-stroke engine with diagram.
(ii) Define mechanical efficiency.
(Or)
- (b) (i) Explain the operating principle of a 4-stroke engine with diagram.
(ii) Why pre-ignition is needed?
18. (a) What is a magneto? Explain the principles of its types.
(Or)
- (b) (i) Explain about the working of ignition systems.
(ii) Explain about low tension systems.
19. (a) What are engine cooling systems? Explain its types.
(Or)
- (b) Explain the construction and working of alternate air systems.
20. (a) What are cowlings and acoustic panels? How to install them?
(Or)
- (b) How to install engine mounts and vibration mounts? Why are they necessary?
21. (a) Write down the procedures for starting and ground run-up of engine.
(Or)
- (b) How to inspect an engine? Explain with criteria and tolerance.
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