

Roll No.....

MVSE-204**M.E./M.Tech. II Semester**

Examination, December 2017

Experimental Stress Analysis**Time : Three Hours****Maximum Marks : 70**

- Note:** i) Answer any five questions.
ii) All questions carry equal marks.

1. a) Describe Moire Fringe method.
b) Explain multichannel recording systems.
2. a) Explain balance bridges systems.
b) Write a note on calibrating strain gages.
3. a) Write a brief note on optical theory.
b) Explain stress analysis by photo elastic strain gages.
4. a) Explain the Griffith Orowan Irwin concept.
b) Explain the integration variation principle in crack theory.
5. a) Write a brief note on calculation of stress intensity factor for double cantilever beam specimen by FEM.
b) Explain stress intensity factor.

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6. a) Explain shell with a crack trajectory.
b) Explain construction crack arrest.
7. a) Explain the fracture mechanics and strength of solids.
b) Explain stable and unstable crack growth.
8. a) Explain stress strain analysis (2-D, 3-D techniques)
b) Explain constant current strain indicators.

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