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**BR—146—2016**

**FACULTY OF SCIENCE**

**M.Sc. (Second Year) (Third Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2016**

**(CBCS Course)**

**COMPUTER SCIENCE**

**Paper CS-302**

**(Java Server Pages, Servlets and Struts)**

**(Friday, 18-11-2016)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—Three Hours*

*Maximum Marks—75*

*N.B. :— (i) All questions are compulsory.*

*(ii) All questions carry equal marks.*

1. Attempt the following (any *three*) : 3×5=15

- (a) Describe servlets job.
- (b) Explain reading form data from servlets.
- (c) Discuss using cookies attributes.
- (d) What are MVC framework ?
- (e) Explain struts and controller layer.

2. Solve any *three* : 3×5=15

- (a) Explain implementing MVC with request dispatcher.
- (b) Explain installation of JSP.
- (c) Explain servlets life cycle.
- (d) Discuss content type and page encoding attributes.

3. Solve any *three* : 3×5=15

- (a) Explain basic component of struts.
- (b) Explain session tracking API.
- (c) Explain attribute like import, contents type and page encoding.
- (d) Explain browser session Vs server session.

P.T.O.

4. Solve any *three* :

3×5=15

- (a) Explain action servlets class.
- (b) Explain model view controll architecture.
- (c) What are beans ? Explain.
- (d) Discuss servlets debugging.

5. Write short notes on any *three* :

3×5=15

- (a) Struts and view layer
- (b) Summarizing MVC code
- (c) The import attribute
- (d) Server Sessions
- (e) Single thread model interface.