



DMM-1675
B. Sc. / M. Sc. (Int. Biotechnology)
(Sem. IV) (CBCS) Examination
April / May - 2016
Instrumentation & Techniques - II
(Core - I) (Course - I)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

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| <p>नीचे दृष्टाविक \leftarrow निशानीवाणी विगतो उत्तरवडी पर अवश्य कभवी. Fillup strictly the details of \leftarrow signs on your answer book.</p> <p>Name of the Examination : B. Sc. / M. Sc. (INT. BIOTECHNOLOGY) (SEM. 4) (CBCS)</p> <p>Name of the Subject : INSTRUMENTATION & TECHNIQUES - 2</p> <p>Subject Code No. : 1 6 7 5 \leftarrow Section No. (1, 2,.....) : Nil</p> | <p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div> |
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- (2) Figures to the right indicate full marks.
(3) Draw neat and labelled diagrams wherever necessary.

- 1 Answer following in short : 8
- (1) State the principle of thermal conductivity detector.
 - (2) Define electrophoresis.
 - (3) Differentiate between isocratic and binary system in HPLC,
 - (4) What do you meant by WCOT and SCOT?
- 2 Attempt any two of following : 14
- (1) Give an account of detectors used in gas chromatography.
 - (2) Write a detailed note on paper chromatography.
 - (3) Give a brief note on HPLC.
- 3 Attempt any two of following : 14
- (1) Write a detailed note on DNA sequencing gels.
 - (2) Give an account of southern blotting for DNA.
 - (3) Discuss the important features of SDS-PAGE for proteins.

4 Answer any **two** of following : 14

- (1) Discuss the principle and applications of flame emission spectroscopy.
- (2) List out the applications of mass spectroscopy.
- (3) Discuss the principle of atomic absorption spectroscopy and give the applications of IR spectroscopy.
