



A-3035
Second Year B. Sc. (Medical Technology)
(Sem. III) (CBCS) Examination
March / April – 2015
MT - 05 : Microbial Metabolism & Genetics

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दर्शावेक निशानीवाणी विगतो उत्तरवही पर अवश्य लपनी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination :</p> <p>Second Year B. Sc. (Medical Technology) (Sem. III)</p> <p>Name of the Subject :</p> <p>MT - 05 : MICROBIAL METABOLISM & GENETICS</p> <p>Subject Code No. : 3 0 3 5 Section No. (1, 2,.....): Nil</p>	<p>Seat No. :</p> <table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>						

- (2) Figures to the **right** indicate full marks.
(3) Draw labelled diagram wherever **necessary**.

- 1 Answer the following briefly : 8
- (a) What are nonsense codons and its role in translation process ?
 - (b) Differentiate transition and transversion.
 - (c) Enlist the types of plasmids.
 - (d) Differentiate microorganisms as per their nutritional requirement.
- 2 Answer any **two** of the following : 14
- (a) Explain in detail the process of gene transfer by bacteriophages.
 - (b) What are plasmids ? Explain in detail the different types of plasmids.
 - (c) Explain in detail the regulation of gene expression.

- 3** Comment / Explain any **two** of the following : **14**
- (a) ETC consists of electron donors and acceptors
 - (b) F factor plays an essential role during conjugation.
 - (c) ATPase plays an important role in ATP generation.
- 4** Write notes on : (any **two**) **14**
- (a) Point mutations Vs. Frame shift mutations
 - (b) Chemostat Vs. Turbidostat
 - (c) Thermophiles Vs. Psychrophiles.
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