

PYQSide

NEET MICROBES IN HUMAN WELFARE — MICROBES IN INDUSTRIAL PRODUCTS (FERMENTED BEVERAGES, ANTIBIOTICS, ENZYMES, BIOACTIVE MOLECULES) — PYQS

Max. Marks: 120

Questions: 30

Section A (MCQ)

Q.1 Match **List I** with **List II** : [NEET (UG) 2026]

List I (Bioactive molecules)		List II (Importance)	
A.	Streptokinase	I.	Immunosuppressive agent
B.	Statins	II.	Removal of clots from the blood vessels
C.	Lipases	III.	Blood cholesterol-lowering agent
D.	Cyclosporin A	IV.	Detergent formulations

- (1) A-II, B-III, C-I, D-IV (2) A-III, B-II, C-IV, D-I
(3) A-II, B-III, C-IV, D-I (4) A-IV, B-III, C-II, D-I

Scan or tap for the full solution



Q.2 Which of the following is used as a clot buster? [RE-NEET (UG) 2026]

- (1) Statins (2) Streptokinase
(3) Penicillin (4) Cyclosporin A

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Q.3 Which of the following is an example of non-distilled alcoholic beverage produced by yeast? [NEET (UG) 2025]

- (1) Beer (2) Rum (3) Whisky (4) Brandy

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Q.4 Streptokinase produced by bacterium *Streptococcus* is used for [NEET (UG) 2025]

(1) Liver disease treatment
(2) Removing clots from blood vessels
(3) Curd production
(4) Ethanol production

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Q.5 Match **List I** with **List II**

List - I		List - II	
A.	<i>Clostridium butylicum</i>	I.	Ethanol
B.	<i>Saccharomyces cerevisiae</i>	II.	Streptokinase
C.	<i>Trichoderma polysporum</i>	III.	Butyric acid
D.	<i>Streptococcus</i> sp.	IV.	Cyclosporin-A

Choose the correct answer from the options given below: [NEET (UG) 2024]

- (1) A-III, B-I, C-II, D-IV (2) A-II, B-IV, C-III, D-I
(3) A-III, B-I, C-IV, D-II (4) A-IV, B-I, C-III, D-II

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Q.6 Match **List-I** with **List-II** relating to microbes and their products:

List-I (Microbes)		List-II (Products)	
A.	<i>Streptococcus</i>	I.	Citric acid
B.	<i>Trichoderma polysporum</i>	II.	Clot buster
C.	<i>Monascus purpureus</i>	III.	Cyclosporin A
D.	<i>Aspergillus niger</i>	IV.	Statins

Choose the correct answer from the options given below: [RE-NEET (UG) 2024]

- (1) A-II, B-III, C-IV, D-I (2) A-I, B-II, C-III, D-IV
(3) A-I, B-III, C-II, D-IV (4) A-I, B-IV, C-II, D-III

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Q.7 Identify the microorganism which is responsible for the production of an immunosuppressive molecule cyclosporin A : [NEET (UG) 2022]

- (1) *Trichoderma polysporum*
(2) *Clostridium butylicum*
(3) *Aspergillus niger*
(4) *Streptococcus cerevisiae*

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Q.8 Match **List-I** with **List-II**

List-I		List-II	
a.	<i>Aspergillus niger</i>	i.	Acetic Acid
b.	<i>Acetobacter aceti</i>	ii.	Lactic Acid

List-I		List-II	
c.	<i>Clostridium butylicum</i>	iii.	Citric Acid
d.	<i>Lactobacillus</i>	iv.	Butyric Acid

Choose the correct answer from the options given below [NEET (UG) 2021]

- (1) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)
 (2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
 (3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
 (4) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)

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Q.9 Match the following columns and select the correct option. [NEET (UG) 2020]

Column-I		Column-II	
a.	<i>Clostridium butylicum</i>	i.	Cyclosporin-A
b.	<i>Trichoderma polysporum</i>	ii.	Butyric Acid
c.	<i>Monascus purpureus</i>	iii.	Citric Acid
d.	<i>Aspergillus niger</i>	iv.	Blood cholesterol lowering agent

- (1) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)
 (2) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)
 (3) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)
 (4) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)

Scan or tap for the full solution



Q.10 Match the following organisms with the products they produce :

Column-I		Column-II	
a.	<i>Lactobacillus</i>	i.	Cheese
b.	<i>Saccharomyces cerevisiae</i>	ii.	Curd
c.	<i>Aspergillus niger</i>	iii.	Citric Acid
d.	<i>Acetobacter aceti</i>	iv.	Bread
		v.	Acetic Acid

Select the **correct** option. [NEET (UG) 2019]

- (1) (a)-(iii), (b)-(iv), (c)-(v), (d)-(i)
 (2) (a)-(ii), (b)-(i), (c)-(iii), (d)-(v)
 (3) (a)-(ii), (b)-(iv), (c)-(v), (d)-(iii)
 (4) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(v)

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Q.11 Which of the following is a commercial blood cholesterol lowering agent? [NEET (UG) 2019]

- (1) Streptokinase (2) Lipases
 (3) Cyclosporin A (4) Statin

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Q.12 Which of the following is correctly matched for the product produced by them? [NEET 2017]

- (1) *Acetobacter aceti* : Antibiotics
 (2) *Penicillium notatum* : Acetic acid
 (3) *Methanobacterium* : Lactic acid
 (4) *Saccharomyces cerevisiae* : Ethanol

Scan or tap for the full solution



Q.13 Which of the following is wrongly matched in the given table? [NEET 2016 (Phase 1)]

- (1) Microbe - *Streptococcus*, Product - Streptokinase, Application - Removal of clot from blood vessel
 (2) Microbe - *Trichoderma polysporum*, Product - Cyclosporin A, Application - Immunosuppressive drug
 (3) Microbe - *Monascus purpureus*, Product - Statins, Application - Lowering of blood cholesterol
 (4) Microbe - *Clostridium butylicum*, Product - Lipase, Application - Removal of oil stains

Scan or tap for the full solution



Q.14 Match the following list of microbes and their importance - [AIPMT 2015]

Column I	
a.	<i>Saccharomyces cerevisiae</i>
b.	<i>Monascus purpureus</i>
c.	<i>Trichoderma polysporum</i>
d.	<i>Propionibacterium sharmanii</i>

Column II	
i.	Production of immunosuppressive agent
ii.	Ripening of Swiss cheese
iii.	Commercial production of ethanol
iv.	Production of blood cholesterol lowering agents

- (1) (a) - (iii), (b) - (i), (c) - (iv), (d) - (ii)
 (2) (a) - (iii), (b) - (iv), (c) - (i), (d) - (ii)
 (3) (a) - (iv), (b) - (ii), (c) - (i), (d) - (iii)
 (4) (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)

Scan or tap for the full solution



Q.15 A good producer of citric acid is [NEET 2013]

- (1) *Clostridium* (2) *Saccharomyces*
 (3) *Aspergillus* (4) *Pseudomonas*

Scan or tap for the full solution



- Q.16** Read the following four statements (A-D) :
How many of the above statements are wrong ?
- A. Colostrum is recommended for the newborn because it is rich in antigen
- B. Chikungunya is caused by a Gram negative bacterium
- C. Tissue culture has proved useful in obtaining virus-free plants
- D. Beer is manufactured by distillation of fermented grape juice [AIPMT 2012 (Mains)]
- (1) Two (2) One (3) Four (4) Three

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- Q.17** *Monascus purpureus* is a yeast used commercially in the production of: [AIPMT 2012 (Prelims)]
- (1) Ethanol
- (2) Streptokinase for removing clots from the blood vessels
- (3) Citric acid
- (4) Blood cholesterol lowering statins

Scan or tap for the full solution



- Q.18** A patient brought to a hospital with myocardial infarction is normally immediately given [AIPMT 2012 (Prelims)]
- (1) Penicillin (2) Streptokinase
- (3) Cyclosporin A (4) Statins

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- Q.19** Read the following statement having two blanks (A and B):
“A drug used for _____ (A) _____ patients is obtained from a species of the organism _____ (B) _____.”
The one correct option for the two blanks is:

[AIPMT 2011 (Mains)]

- (1) A → Organ-transplant, B → *Trichoderma*
- (2) A → AIDS, B → *Pseudomonas*
- (3) A → Swine flu, B → *Monascus*
- (4) A → Heart, B → *Penicillium*

Scan or tap for the full solution



- Q.20** Which one of the following is a wrong matching of a microbe and its industrial product, while the remaining three are correct? [AIPMT 2011 (Mains)]
- (1) *Acetobacter aceti* – acetic acid
- (2) *Clostridium butylicum* – lactic acid
- (3) *Aspergillus niger* – citric acid
- (4) Yeast – statins

Scan or tap for the full solution



- Q.21** The most common substrate used in distilleries for the production of ethanol is : [AIPMT 2011 (Prelims)]
- (1) Ground gram (2) Molasses
- (3) Soyabean (4) Corn meal

Scan or tap for the full solution



- Q.22** Ethanol is commercially produced through a particular species of : [AIPMT 2011 (Prelims)]
- (1) *Clostridium* (2) *Trichoderma*
- (3) *Aspergillus* (4) *Saccharomyces*

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- Q.23** Continuous addition of sugars in 'fed batch' fermentation is done to : [AIPMT 2011 (Prelims)]
- (1) obtain antibiotics (2) produce methane
- (3) purify enzymes (4) degrade sewage

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- Q.24** Which one of the following pairs is wrongly matched? [AIPMT 2009]
- (1) Detergents – lipase
- (2) Fruit juice – pectinase
- (3) Alcohol – nitrogenase
- (4) Textile – amylase

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- Q.25** Modern detergents contain enzyme preparations of [AIPMT 2008]
- (1) thermoacidophiles (2) thermophiles
- (3) acidophiles (4) alkaliphiles

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- Q.26** Which one of the following pairs is wrongly matched ? [AIPMT 2007]
- (1) Methanogens – Gobar gas
- (2) Yeast – Ethanol
- (3) Streptomycetes – Antibiotic
- (4) Coliforms – Vinegar

Scan or tap for the full solution



- Q.27** Curing of tea leaves is brought about by the activity of [AIPMT 2006]
- (1) fungi (2) bacteria
- (3) mycorrhiza (4) viruses

Scan or tap for the full solution



- Q.28** For retting of jute the fermenting microbe used is [AIPMT 2005]

- (1) methanophilic bacteria
- (2) butyric acid bacteria
- (3) *Helicobacter pylori*
- (4) *Streptococcus lactis*.

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full solution



Q.29 Which one of the following pairs is not correctly matched ? [AIPMT 2004]

- (1) *Spirulina* (2) *Streptomyces*
– Single cell protein – Antibiotic
- (3) *Rhizobium* (4) *Serratia*
– Biofertilizer – Drug addiction

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full solution



Q.30 Which of the following is used to manufacture ethanol from starch? [AIPMT 2000]

- (1) *Saccharomyces* (2) *Lactobacillus*
- (3) *Azotobacter* (4) *Penicillium*

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full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	3	2	1	2	3	1	1	2	4	4	4
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	4	4	2	3	4	4	2	1	2	2	4
Ques.	23	24	25	26	27	28	29	30			
Ans.	1	3	4	4	2	2	4	1			