

Sem-V (CBSSGS)

Q. P. Code: 20760

Regular

N.B.: 1. All Questions are compulsory

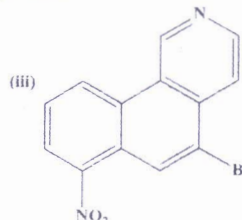
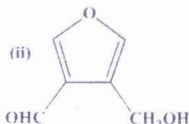
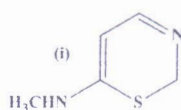
Time: 3 Hours

Total Marks: 70

2. Figures to right indicate full marks

Q. 1. A. Give the IUPAC nomenclature of the following compounds

(03)



B. Define following terms: (i) Disrotatory motion (ii) E-factor (iii) Steroids (03)

C. Draw structures of the following: (i). Testosterone (ii) 5 β -cholestan-3 β , 6 β -diol (in chair form)(iii) 5 α -estrane chair form. (03)

D. Give suitable explanation for the statement 'Pyridine is a weaker base than aliphatic tertiary amines'.

(02)

E. Depict the two disconnection strategies

(02)

F. Depict hydrothermalite catalyzed condensation reactions.

(02)

Q. 2. A. Write mechanism for (Any Two): (i). Friedlander synthesis (ii). Bischler-Napieralski

(iii). Paal Knorr synthesis for furan

(04)

B. 'Thermal (4+2) cycloaddition of 1,3-butadiene with propenal is symmetry allowed', justify the statement using molecular orbitals

(04)

C. Discuss the green strategies for MPV reduction.

(03)

Q. 3. A. Depict mechanism for the following conversions (Any Two)

(04)

(i). 2 moles of Ethylacetoacetate to 2,4,6-trimethylpyridine (ii). Benzil to 2,4,5-triphenylimidazole

(iii). Diethylmalonate to 2,4,6-trihydroxypyrimidine

B. Design retrosynthetic scheme and synthesis for Ibuprofen OR Benzocaine

(04)

C. Compare merits and demerits of classical and zeolite catalyzed Friedel-craft acylation with an example.

(03)

Q. 4. A. Write structures of products formed for the following reactions (Any Eight):

(08)



2nd half 2017
SEM - V (CBCGS)

Q. P. Code: 22804

Time: 3 Hours

Marks: 70

NB: (1) All questions are compulsory

(2) Figures to the right indicate full marks

- Q.1 a) Give schedule M II requirement for Toothpaste. (2)
- b) Give an account of bleach products (3)
- c) Write a note on cuticle softener. (2)
- d) Write a brief note on hair waving process. (2)
- e) Write in brief on Dry shave preparations. (3)
- f) Elaborate on bath salts. (3)
- Q.2 a) Discuss Sensitivity testing of cosmetic products done on human volunteers. (4)
- d) Elaborate on Large scale manufacturing of vanishing cream (3)
- OR
- b) Write a note on face pack. (3)
- c) Discuss the formulation and packing of antilice shampoo. (4)
- Q.3 a) Write a formula of Lather shaving cream. Discuss their Quality control tests with BIS specification. (4)
- b) Enlist various Eye makeup products and write a note on any one. (3)
- c) Write short note on (any one) (4)
- i) Perfumes
- ii) Water used in cosmetics
- Q.4 a) Discuss the formulation of Liquid foundation. (3)
- OR
- a) Write a brief note on compact Rouge. (3)
- b) Enlist the three reactants with examples used in permanent hair colourant and Write the sensitivity test done for the same. (4)
- c) Discuss the Large scale manufacturing of Tooth Paste (4)
- Q.5 a) Suggest a suitable formula of depilatory with role of each ingredient. Write the properties expected in depilatory product. (3)
- b)) Discuss steps involved in manufacturing of Lipstick mentioning the equipment used in each step. (4)

OR

Note: 1. Figures to right indicates marks.

2. All Questions are compulsory

Q.1 Answer the followings

- A) What do you mean by RFLP? (1)
- B) Draw a flow chart of downstream processing of fermentation. (2)
- C) Comment of Microbial limit test. (2)
- D) Write a short note on Northern blotting. (2)
- E) Define electrophoresis and write a note on SDS-PAGE. (2)
- F) Define biosensors and enlist its applications. (2)
- G) Comment immobilization by cross linking. (2)
- H) What do you mean by Phagocytosis? (2)

Q.2. Answer the followings.

- A) Elaborate on production of amylase by fermentation technology. (4)
- B) Explain the production of Human Insulin by rDNA technology. (4)
- C) Define vaccines and give classification of vaccines. (3)

Q3 Answer the followings

- A) Define Transgenic and Explain application of Transgenic Animals and Plants. (4)

OR

- A) What is cDNA, explain the process to obtain it (4)
- B) Define enzyme immobilization and explain Adsorption in detail with its applications. (4)
- C) Write a short note on BCG vaccines. (3)

Q4 Answer the followings

- A) Explain Clonal selection theory. (4)

OR

- A) Explain structure of Antibody and types of antibody. (4)

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- B) Explain pH, Media Composition, aeration and antifoaming agent in fermentation. (4)
- C) What is Tissue culture and writes its applications in Pharmaceuticals. (3)

Q.5 Answer the followings

- A) Enlist Enzymes used in rDNA technology. Explain the role of restriction endonuclease in detail. (4)

OR

- A) Explain any two types of vectors with their applications in r-DNA method. (4)
- B) Comment on Diffusion bioassay and Turbidimetric assay. (4)
- C) What is animal cell culture? Enlist the components of animal media composition. (3)

Q.6. Answer the followings

- A) Explain the steps involved in hybridoma technology with diagram. (4)

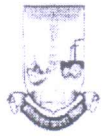
OR

- A) What is innate immunity? Explain in detail. (4)
- B) What is gene expression? Explain the bacterial gene expression with diagram. (4)
- C) Comment on type IV hypersensitivity. (3)

Block.

Correction in QP Code: 24464

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Correction in Program Code : T10025 - T.Y. Bachelor of Pharmacy (Sem V)(CBSGS) / T0191 - Pharmaceutical Biotechnology
QP Code: 24464

Q.1 C) Read as **Comment on Microbial limit test** instead of **Comment of Microbial limit test**

Q.5 C) Read as **What is animal cell culture? Enlist the components of animal cell culture media** instead of **What is animal cell culture? Enlist the components of animal media composition.**

University of Mumbai

Block ①

[Signature]
23-11-17

PHC5015 - A Khan
PHC5001 - Richano.

Block 2

[Signature]
PHC5050 - Ahan
PHC5063 - Shy



Q.P. Code :19971

[Time: Three Hours]

[Marks:70]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
 2. Figures to the right indicates full marks.

- Q.1 a) Answer the following:- 12
- i. Give mechanism of action of Amphotericin B.
 - ii. Enlist different mechanisms of resistance to antibiotics.
 - iii. Discuss role of CD4+ cells in AIDS.
 - iv. Explain the effect of thyroid hormones on metabolism.
 - v. Classify anti - diabetic agents with suitable examples.
 - vi. Give clinical uses of Vitamin K.
- b) Match the following: 03
- | Drugs | Adverse effects |
|--------------------|----------------------------|
| A. Aminoglycosides | A. Anaphylactoid reactions |
| B. Insulin | B. Ototoxicity |
| C. Parenteral iron | C. Cardiomyopathy |
| | D. Hypoglycaemia |
- Q.2 a) Answer any two of the following:- 08
- i. Enlist any four antimicrobial agents affecting bacterial protein synthesis. Write a note on Penicillin.
 - ii. Write a short note on anthelmintic drugs.
 - iii. Explain the life cycle of malarial parasite. Add a note on site of action of antimalarial drugs.
- b) Attempt any one of the following:- 03
- i. Justify the use of Co-trimoxazole. Enlist clinical uses of Sulphonamides.
 - ii. Classify antimycobacterial agents. Discuss adverse effects of Ethambutol.
- Q.3 a) Answer any two of the following:- 08
- i. Discuss the role of parathyroid hormone and vitamin D in bone metabolism.
 - ii. Explain the pharmacology of Oxytocin.
 - iii. Write a note on DPP IV inhibitors.
- b) Write a short note on any one of the following:- 03
- i. Sulfonylureas
 - ii. Radioiodine

Q.P. Code : 23118

[Time: Three Hours]

[Marks:70]

Please check whether you have got the right question paper.

- N.B: 1) Question No 1 is compulsory.
 2) Attempt any five questions from remaining six questions.
 3) Attempt in all six questions

Q.1	Answer the following:-	
	a) Define a brand	01
	b) What do you understand by SWOT analysis? What is it's importance	02
	c) Enlist the four P's in marketing mix.	02
	d) Define 'targeting' with appropriate examples.	01
	e) Differentiate between segmentation and positioning with appropriate examples.	02
	f) Define Team and enlist its characteristics.	02
	g) What is DPCO?	01
	h) Discuss the importance of Porter's 5 force model.	02
	i) What do you understand by employee motivation?	01
	j) Explain market share.	01
Q.2	a) Explain BCG Matrix.	04
	b) Briefly explain various sources of conflict.	04
	c) Discuss the important features of body language.	03
Q.3	a) What are the different pricing methods?	04
	b) Write a note on FDA regulations for drugs.	04
	c) Write a note on importance of planning.	03
Q.4	a) Discuss the importance of a brand plan. What are it's elements?	04
	b) What are stressors? Discuss any two types of stressors.	04
	c) Write a note on Patent registration.	03
Q.5	a) Differentiate between psychographic and behavioral segmentation.	04
	b) Write a note on different strategies used in time management.	04
	c) What are the different ways of promoting a pharma product?	03
Q.6	a) Commercial success of a pharma product depends on the multitasking medical representative. Discuss.	04
	b) Explain in brief, the various stages in product Life cycle.	04
	c) What is positioning? Explain using appropriate pharmaceutical examples.	03
Q.7	a) Write a note on health care industry in India.	04
	b) Discuss the importance of leadership in management.	04
	c) Discuss the importance of packaging and labeling in pharmaceutical industry.	03