Code No. 4137/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, February 2017

Subject : Human Anatomy and Physiology - I

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) What are tissues ? Describe the structure, and functions of muscular tissue. (8)
(b) Explain general principles of membrane permeability. (6)

OR

(c) Classify various types of connective tissue and explain in detail all types of connective tissues. (14)

2 (a) Explain the physiology of muscle contraction. (8)
(b) Discuss the properties and functions of osseous tissue. (6)

OR

(c) Explain the various parts of the following bones with neat diagram.: (14)
(i) Thoracic (ii) Sternum (iii) Humerus (iv) Tarsals

3 (a) Define Haemopoiesis? Expalin the various events in Haemopaiesis. (10)
(b) Write the composition and functions of Lymph. (4)

OR

(c) Discuss about Haemostasis. (6)
(d) Write the functions of RBC and WBC. (8)

4 (a) Define cardiac cycle. Explain the various events in cardiac cycle. (10)
(b) Write a note on heart valves. (4)

OR

(c) Write a note on action potential. (6)
(d) Explain the regulation of blood pressure. (8)

5 (a) Describe the physiology of hearing. (8)
(b) Explain the structure of skin with a neat labelled diagram. (6)

OR

(c) Discuss the anatomy of eye with a neat labelled diagram. (10)
(d) Give a note on various types of taste buds. (4)

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Code No. 4135/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, February 2017

Subject : Basic Computer Applications – I

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) Draw the block diagram of computers. Explain the components. (7)
(b) Write about the characteristics of computers. (7)

OR

(c) What is operating system? Explain importance and features of operating system. (7)
(d) List out commonly used input and output devices of computer. Write about secondary storage devices. (7)

2 (a) Write about the important features of MS-Word. (7)
(b) Explain about
(i) Tables (ii) Header (iii) Footer (7)

OR

(c) Write about different types of charts available in MS-Excel. (7)
(d) Write the mathematical and statistical functions in MS-Excel. (7)

3 (a) Discuss about views in MS Power Point. (7)
(b) Write short notes on : (7)
(i) Slide transition (ii) Custom animation

OR

(c) Explain about data types available in MS Access. (7)
(d) Explain about : (7)
(i) Importing and exporting
(ii) Sorting and filtering

4 (a) Explain the following: (14)
(i) Search engine
(ii) Structure and organization of WWW
(iii) Internet browsers
(iv) E-Mail

OR

(b) Explain the following:
(i) Information search in WWW
(ii) Types of indexing tools and search strategies
(iii) Internet

5 (a) Explain the following: (14)
(i) HTML (ii) Tables (iii) List tags with examples

OR

(b) Explain the following:
(i) HTML
(ii) Structure of HTML
(iii) Frames and forms with examples

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Code No. 4134/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, January 2017

Subject : Pharmaceutical Inorganic Chemistry

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) What is an impurity? Explain how the impurities get incorporated in the pharmaceutical. (1+7)

(b) Explain the principle and procedure involved in the limit test for chloride and lead. (3+3)

OR

(c) Classify inorganic pharmaceuticals based on their therapeutic applications with examples. (9)

(d) Define a limit test. Discuss the methods used to purify inorganic substances. (1+4)

2 (a) What are electrolyte replenishers? Give the method of preparation, properties and assay of calcium gluconate. (8)

(b) Define and classify catharatics with examples. Mention the properties and test for purity of magnesium sulphate. (3+3)

OR

(c) Define and classify antacids. Give the preparation, assay and uses of magnesium hydroxide mixture. (8)

(d) Write a note on intraperitonealdialysis fluids. (6)

3 (a) What are antioxidants? Write the preparation and properties of any two official antioxidants. (5)

(b) Mention the role of suspending agents in pharmaceutical preparations. (4)

(c) Write a note on bentonite. (5)

OR

(d) List out official iron compounds used as haematinics. Give the preparation, assay and uses of ferrous sulphate. (6)

(e) Define the following terms with examples. (4x2)
(i) Absorbent (ii) Dessicant (iii) Excipient (iv) Colourant

4 (a) What are expectorants? Give the method of preparation, properties and assay of ammonium chloride and potassium iodide. (8)

(b) Write a note on treatment of cyanide poisoning. (6)

OR

(c) What are antimicrobial agents? Give the method of preparation and assay of potassium permanganate and silver nitrate. (9)

(d) Write a note on activated dimethicone. (5)

5 (a) Classify dental products. Explain the role of fluorides in preventing dental caries. (2+5)

(b) Explain the principle and procedure involved in the assay of barium sulphate. (4)

(c) Write a note on surgical aids. (3)

OR

(d) Give the method of preparation and uses of following: (3x2)
(i) Hydrogen peroxide (ii) Potassium perchlorate (iii) Calcium carbonate

(e) Define oral antiseptic and astringent with examples. (4)

(f) Write a note on dentifrices, cement and filters.

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Code No. 4136/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, February 2017

Subject : General Pharmacy

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) Explain the detailed pharmacopoeial monograph contents with an example. (9)
(b) Describe Martindale and Merck Index. (5)

OR

(c) Give brief explanation to European and American Pharmacy. (6)
(d) What are the functions of PCI? (4)
(e) Write a short note on IP and USP. (4)

2 (a) Prepare 40ml of 45% alcohol form 95% alcohol. (4)
(b) Calculate the quantity of sodium chloride required to prepare 400ml of a 0.9% solution. (4)
(c) Explain in detail about the selection and care of weights and balances. (6)

OR

(d) Calculate 50% V/V and 25% V/V alcohol required to prepare 150ml of 40% V/V alcohol by allegation method. (4)
(e) What are isotonic solutions? Write about freezing point data method for the adjustment of iconicity. (5)
(f) Find the concentration of sodium chloride required to produce solution iso-osmotic with blood plasma (Mol. Weight of sodium chloride -58.5). (6)

3 (a) Define prescription. Explain in detail about the Parts of prescription. (7)
(b) Calculate the dose for the following when the adult dose of the drug is 500 mg. (7)
(i) 6 months old infant (ii) 5 years old child (iii) Boy of 14 years

OR

(c) What are the probable sources of errors in dispensing a prescription? (4)
(d) Explain modern methods of prescribing medicines. (4)
(e) Write a note on : (3+3)
(i) Responding to prescription
(ii) Pricing of prescription

4 (a) Classify containers with respect to method of closures. (4)
(b) Write about various cautionary and advisory labels for different formulations. (6)
(c) What are the ideal properties of the container closure system? (4)

OR

(d) Write a note on child resistant containers. (6)
(e) Explain in detail about the container closure system for semisolid preparations meant for application to the skin or mucosa. (8)

5 (a) Write a note on Hydrocolloids. (7)
(b) Discuss in brief about the safety measures and precautions while handling medical gases. (7)

OR

(c) Write a note on : (4+4)
(i) Antioxidants (ii) Surfactants
(d) Discuss in detail about the preparation and uses of any two radio-pharmaceuticals. (6)

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Code No. 4138/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, February 2017

Subject : Mathematics

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) Find the value of 'x' from $\log_2 x + \log_4 x + \log_8 x = 11$.

(b) Show that $\frac{Tan\ 69^o + Tan\ 66^o}{1 - Tan\ 69^o . Tan\ 66^o} = -1$.

OR

(c) If $x = \log_{2a} a$, $y = \log_{3a} 2a$ and $z = \log_{4a} 3a$, Then show that $xyz + 1 = 2yz$.

(d) Find the value of $\sin 22\frac{1}{2}^o$ and $\cos 22\frac{1}{2}^o$.

2 (a) Use first principles to find cos x derivative.

(b) Evaluate $\underset{x\to 0}{Lim}\frac{1-\cos x}{x^2}$.

OR

(c) If $u = \sin^{-1}\left(\frac{x^2+y^2}{x+y}\right)$ prove that $x\frac{\partial u}{\partial x} + y\frac{\partial u}{\partial y} = Tanu$.

(d) If $z = x^2 + xy + y^2$. Find $\frac{\partial z}{\partial x}$ and $\frac{\partial z}{\partial y}$.

3 (a) Evaluate $\int \frac{1}{1-\sin x} dx$.

(b) Evaluate $\int \sec^2 x \cos ec^2 x\, dx$.

OR

(c) Evaluate $\int \frac{x^8}{x^6+1} dx$

(d) Find the area bounded by the curve $x^2 = 4ay$ and the line $y = 2a$.

4 (a) Show that $\begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ a^2 & b^2 & c^2 \end{vmatrix} = (a-b)(b-c)(c-a)$.

(b) Solve the system of equations $x + y + z = 3$, $x + 2y + 3z = 4$, $x + 4y + 9z = 6$ by matrix inversion method.

OR

(c) Find the value of x if $\begin{vmatrix} 3x-8 & 3 & 3 \\ 3 & 3x-8 & 3 \\ 3 & 3 & 3x-8 \end{vmatrix} = 0$

(d) If $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$ show that $A^2 - 4A - 5I = 0$.

..2

5 (a) Write about Linear and Non-Linear graphs.

(b) Find the equation of the line passing through (2, -1) with slope – 2.

OR

(c) Solve $\frac{dy}{dx} = e^{3x-2y} + x^2 e^{-2y}$

(d) Solve $x \log x \frac{dy}{dx} + y = \log x^2$.

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Code No. 4139/CBCS

FACULTY OF PHARMACY

B. Pharmacy I-Year I-Semester (CBCS) (Main) Examination, January 2017

Subject : Biology

Time : 3 Hours **Max. Marks: 70**

Note: Answer all questions. All questions carry equal marks.

1 (a) Discuss about non-living cell inclusions of a plant cell.
(b) Write a descriptive note on parenchyma cells.

OR

(c) With neat labeled diagram explain in detail internal structure of plant cell.

2 (a) Illustrate various types of root modifications in detail.
(b) Describe and draw morphology of fruit.

OR

(c) Discuss various types of stem modifications with their significance.

3 (a) Discuss the taxonomy of Umbelliferae family.
(b) Describe vegetative, floral characters of apocynaceae family.

OR

(c) Describe vegetative, floral characters taxonomy of solanaceae family.

4 (a) Describe in detail mitosis with neat labeled diagram.
(b) Write a note on histology of rabbit liver.

OR

(c) Differentiate between plant and animal cell.
(d) Write a note on histology of rabbit intestine.

5 (a) Describe the life history of entamoeba with neat labeled diagram.

OR

(b) Describe morphology and life history of housefly with neat labeled diagram.

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