

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4103

Course Title: Educational Psychology

Winter Semester (2018-2019)

Time : 90 min

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- | | | |
|---|--|------|
| 1 | (a) Discuss aims of educational psychology. | 10 |
| | (b) Explain – how “ <i>Psychology is a mental process and study on human behavior</i> ”? | 6.66 |
| 2 | (a) How the term LEARNING defines in educational psychology? | 10 |
| | (b) Give examples of Formal learning, Non-formal learning and Informal learning. | 6.66 |
| 3 | (a) What is meant by EFFECTIVE TEACHER? Explain. | 10 |
| | (b) How an effective teacher selects and organize learning material according to (i) interest, (ii) values and (iii) growth of the students. | 6.66 |
| 4 | (a) Discuss the value of MOTIVATION in the process of teaching-learning. | 10 |
| | (b) Write short note (any one) from the following: | 6.66 |
| | (i) Knowledge, (ii) Emotion, (iii) Personality, (iv) Mental health. | |

Programme: B.Sc.TE (2 year), 3rd Sem & B.Sc.TE (1 year), 1st Sem **Date:** 12 March 2019, Tuesday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4111

Course Title: Occupational Analysis & Course construction

Winter Semester (2018-2019)

Time : 1.5 Hours

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

1.
 - a) What is Occupation as defined by occupational therapist (OT)? 5
 - b) Explain any five areas of occupation as classified by Occupational Therapy Practice Framework. 10
 - c) With the help of a diagram, discuss the five meaning of occupational competence. 10

2.
 - a) Write a short note on the following competences:
 - I. Powerful skills 5
 - II. Hybrid skills 5
 - III. Core Skills 5
 - b) What is task analysis? 5
 - c) List any five importance for task analysis for instructional designers. 5

3.
 - a) Task Analysis is used extensively in designing different forms of instructions that is aimed at preparing learners for a particular occupation. Discuss the five general classes or kind of task analysis that have emerged. [use diagram where necessary] 15
 - b) According to Romiszowski (1981), task analysis procedures pervade different levels of instructional design. Explain. 5
 - c) List five distinctive functions that make up a task analysis process. 5

4.
 - a) Fire house limited would wish to train its employees on how to counter a fire outbreak. FireFighter are involved with so many tasks including: cleaning the fire van, dressing up with appropriate gears, packaging basic first aids, investigation of fire scene, fire preventing, rescuing victims on site and documenting or reporting their exercise. Using the task selection criteria, develop task selection worksheet that will depict different scores for each task in relation to its criteria. Based on these totals for each task, prioritize the task on the scale and select those tasks that should be included in the formal training/instruction. 25

Programme: B.Sc. TE (2 year), 3rd Semester

Date 04 March 2019, Monday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4117

Course Title: Curriculum Development, Administration & Supervision of Technical and Vocational Education

Winter Semester (2018-2019)

Time : 1Hr 30 Minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

1. a) Define Curriculum of TVE according to Curtis R. Finch. According to Finch's definition, two additional supporting concepts should be accepted by TVET curriculum developers. Explain 10
b) Explain any five characteristics of Vocational and Technical curriculum that distinguish it from the rest of educational milieu. 10
c) In the early foundation of curriculum development of TVET, apprenticeship was highly considered in most ancient countries like Palestine and Greece. Unfortunately, by sixteenth century apprenticeship began to decline steadily as a result of different alternatives considered. Discuss these different alternatives that were considered in place of apprenticeship. 5
2. a) Discuss the relationship between curriculum, instruction and teaching. 5
b) What are the rationale for curriculum development in vocational and technical education? 10
c) With the help of a diagram, explain the key elements of curriculum development? 10
3. a) With the help of a diagram, explain the basic notion to vocational program in a systematic design? 10
b) Curriculum as we know it today has evolved over the years from narrow set of disjointed offerings to a comprehensive array of relevant student learning experiences. Discuss the historical perspectives of technical and vocational curriculum development. 15
4. write short note on the following main data sources used as a basis of curriculum decision in TVET [include diagram in your explanation]:
a) individual needs approach 8
b) Structure of organized body of knowledge 9
c) needs of the society 8

Programme: BScEngg MCE, 1st Sem

Date: 12 March 2019, Tuesday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination
Course No: HUM 4117
Course Title: Islamic History & Culture

Winter Semester (2018-2019)
Time : 1.5 hours.
Full Marks : 75

There are 4(four) questions. Answer any 3(three) from the followings
Figures on the right margin indicate marks of the question

- | | | |
|----|--|----|
| 1. | a) Discuss about the Intellectual Foundations of Muslim civilization | 15 |
| | b) Define the concept and uses of knowledge in Islam | 10 |
| 2. | a) Explain briefly about the history of Pre-Mohammadan (Swt) period | 10 |
| | b) Discuss about the Biography, Prophecy and the Attributes of Prophet Mohammad(swt) | 15 |
| 3. | a) What are the major features of Madinan charter? | 10 |
| | b) Explain the political principles mentioned in the Holy Qur'an | 15 |
| 4. | a) Discuss briefly about the pious Caliphs. | 10 |
| | b) What are the political systems and practices at the time of pious Caliphs | 15 |

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4125

Course Title: Islamic History, Philosophy and Culture

Winter Semester (2018-2019)

Time : 1.5 Hours

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) What is meant by *Tawhid*? Discuss its implications. 10
- b) How did our Prophet (Saw) explain *Ihsan*? Discuss the role of *Ihsan* in reconstructing social life. 5
- c) Cite an incident related to honesty and trustworthiness of the early Muslims to clarify *Ihsan*'s role in the rise of Islamic civilization. 10
2. a) Point out the difference between *Sunnah* and *Hadith*. 7
- b) Discuss how the authority of *Sunnah* was established. 10
- c) Is *Gharib Hadith* authentic? Explain. 8
3. a) Discuss the pitfalls of *ibne- Ishaque* as a Maghazi Writer. 15
- b) Who amended them and how? 10
4. a) Analyze the administration of Prophet (S.M.) related to the state revenue. 15
- b) Explain the state welfare system introduced by Omar (R.) 10

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4125/TVE 4127

Course Title: Methods & Techniques of Teaching

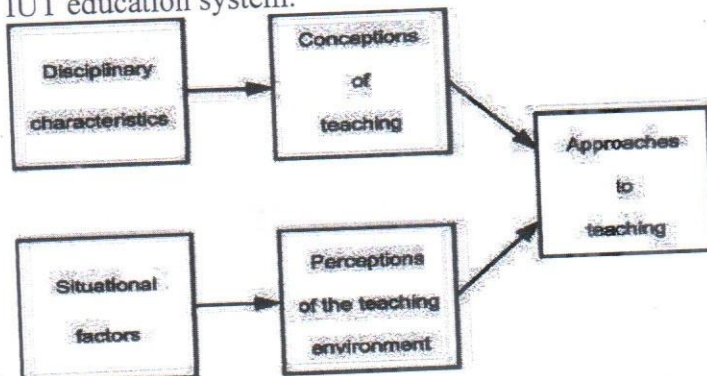
Winter Semester (2018-2019)

Time : 1.5 Hours

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) What is good teaching meant to you? Describe your meaning with two examples related to teachers' teaching practices in Technical and Vocational Education (TVE). 3+7
- b) Teachers' approaches to teaching are connected to other components as shown in the diagram. Do you agree with these relationships? Elaborate your answer in relation to IUT education system. 15



- c) (Source: Richardson, 2005, p. 679)
2. a) Identify ten best qualities of a good student in engineering education and provide supporting reason of identifying such qualities. 15
- b) In order to make learning interesting and effective, the following three factors are highly desirable: (i) Active involvement of students and teachers, (ii) Students are motivated; and (iii) Participatory and threat free teaching environment; elaborate these three factors. 10
3. a) Name five teaching aids which are most commonly used in teaching learning situation. 5
- b) Which teaching aids link a computer to a projector and a touch-sensitive screen? Discuss its advantage and disadvantages in teaching and learning contexts. 15
- c) Write three guidelines to prepare an effective teaching aid. 05
4. a) How learning is product oriented, clarify with an example. 09
- b) Draw a comparison table that represents different aspects (features) among the following theories of learning: 16
- Behaviorism,
 - Constructivism.

Programme: B.Sc. TE (1 year), 1st Semester

Date: 08 March 2019, Friday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4139

Course Title: Principles of Technical & Vocational Education

Winter Semester (2018-2019)

Time: 1.5 Hours

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1.
 - a) Differentiate between Technical Education and Vocational Education? 5
 - b) Write a short note on the following:
 - I. Apprenticeship 5
 - II. prevocational education and training 5
 - c) The Rwandan government initiated an education reform program from 2008-2013, that specifically aimed at improving TVET provisioning. Though Rwandan government has taken this step, its political agenda involve tensions between various policy objectives. Explain the main political tensions that might be involved in educational policies, a context of Rwanda? Explain your points with relevant examples. 10

2.
 - a) Discuss the main principles for a successful TVET system. 10
 - b) What are the challenges facing TVET? What strategies have been established in order to increase attractiveness of TVET? [select a country of your preference and justify your answers in that country's context] 15

3.
 - a) Write a short note on the three models of TVET used worldwide:
 - I. Liberal market economy model 5
 - II. state-regulated bureaucratic model 5
 - III. dual system model 5
 - b) Explain the main organizational components found in TVET system? 10

4.
 - a) The evolution and development of **TVET** in both a developed and a developing country is critically dependent upon the economic and social context of that country. No two countries are ever in identical circumstances or for that matter even similar circumstances. Discuss 20
 - b) Draw a TVET Model as used in the United Kingdom 5

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination**Course No:** TVE 4141**Course Title:** History of Technical and Vocational Education**Winter Semester (2018-2019)****Time:** 1.5 Hours**Full Marks:** 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- | | | |
|----------|---|----|
| <u>1</u> | a. What do you understand by “Vocational Education and Training (VET)”? | 5 |
| | b. Why is VET important for economic development of a country? | 10 |
| | c. What are the factors that make VET systems different? | 10 |
| <u>2</u> | The history of the development of Technical and Vocational Education can be divided into three periods: Early period, Medieval period and the Modern period. | |
| | a. Describe the manual arts and vocational education during the medieval period. You should particularly focus on the attitudes of the Greeks and Christians. | 10 |
| | b. Describe the education and social reforms done by Martin Luther (1483-1546 AD). | 10 |
| | c. Illustrate the contributions of Francis Bacon (1561-1626 AD) in the Modern society. | 5 |
| <u>3</u> | a. State the principles of the Russian System of Manual Training developed by Victor Della-Vos in the 1860's. | 10 |
| | b. Describe the characteristics of the Russian System of Manual Training. | 10 |
| | c. What are the basic elements of the Apprenticeship Training in the Dual System in Germany? | 5 |
| <u>4</u> | a. Describe the history of the educational Sloyd of Scandinavia. What was the role of Otto Solomon after being invited by Abrahamson? | 15 |
| | b. State the goals/ aims of Sloyd according to Solomon. | 10 |

Programme: B.Sc.TE (2 year), 3rd Sem/ B.Sc.TE (1 year), 1st sem **Date:** 11 March, 2019, Monday, (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL & VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4143

Course Title: Comparative Education

Winter Semester (2018-2019)

Time: 1.5 Hours

Full Marks: 75

There are 04 (four) questions. Answer any 03 (three).
Figures in the right margin indicate marks of the questions.

- | | | |
|----|---|--------|
| 1. | (a) Define comparative education. How comparative education influences in Technical Education? | 07 |
| | (b) Discuss briefly the purposes of comparative education. | 08 |
| | (c) Explain different problems of studying comparative education. | 10 |
| 2. | (a) Discuss briefly historical review of comparative education. | 10 |
| | (b) Why different methods are used for studying comparative education? Explain briefly each of these methods. | 15 |
| 3. | (a) State the objectives of UK education system. Explain the structure of UK education system with a necessary diagram. | 12 |
| | (b) Why teachers' training is important in UK education system? | 8 |
| | (c) State the significant features of UK education system. | 5 |
| 4. | (a) State the importance of economical factor in the development of education of a country? | 5 |
| | (b) Write short note on the followings: | |
| | (i) Geographical factor in education. | 4x5=20 |
| | (ii) Social factor in education. | |
| | (iii) Racial factor in education. | |
| | (iv) Nationalism factor in education. | |

Programme: BSc.Engg. (SWE), 1st Semester

Date: 12 March 2019, Tuesday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: HUM 4147

Time : 1.5 Hours

Course Title: Technology, Environment and Society

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

- | | | | |
|----|----|---|----|
| 1. | a) | Write a short note on Sustainable Development. | 05 |
| | b) | Describe the five measures of sustainable development. | 15 |
| | c) | How is the concept of Carrying capacity related to Sustainable development? Explain with appropriate examples. | 05 |
| 2. | a) | In your opinion, will uncontrolled population growth be an environmental concern? Explain your position with logical reasoning. | 10 |
| | b) | What is "Biodiversity Loss"? Identify the general Ecosystem Services that we get from mother nature and explain them with examples. | 10 |
| | c) | What is Environmental Justice? | 05 |
| 3. | a) | What is Environmental Stewardship? Describe the core principles of environmental stewardship. | 10 |
| | b) | What is 'Biome'? Identify the main characteristics of any five types of Biomes. | 15 |
| 4. | a) | Define Carrying Capacity of an ecosystem. How the idea of sustainable resource use, contribute to the ecological balance? | 10 |
| | b) | Write a short note on Earth System and Global Atmospheric Change. | 10 |
| | c) | What is ecosystem? Describe biotic and abiotic factors of an ecosystem. | 05 |

Programme: BScEngg CSE, 1st Semester

Date: 05 March 2019, Tuesday

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4147

Course Title: Technology, Environment and Society

Summer Semester (2018-2019)

Time : 1hr 30 min.

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

1. a) What is an ecosystem? Draw and explain the flow of energy in an ecosystem. 05
- b) Define Carrying Capacity of an ecosystem. How can the idea of sustainable resource use contribute to the ecological balance? 10
- c) Write a short note on Earth System and global Atmospheric Change. 10

2. a) Do you think that uncontrolled population growth is an environmental concern? Explain from your understanding with logical reasoning. 10
- b) What is "Biodiversity Loss"? What are the general Ecosystem Services, we get from mother nature? Explain with example. 10
- c) Explain the term Environmental Justice with example. 05

3. a) Define carbon sequestration? What are the benefits of carbon sequestration? 05
- b) What is Environmental Stewardship? Mention and describe the core principles of environmental stewardship. 10
- c) Differentiate between weather and climate. How acid rain forms and mention it's consequences to the environment from your understanding. 10

4. a) What is air pollution? Describe the categories of air pollutants with appropriate example. 05
- b) What is ozone hole? Explain the process of ozone layer depletion with the chemical reactions. Mention the impacts of ozone layer depletion on human health and ecology. 15
- c) Explain Hydrological cycle with necessary illustration. 05

Programme: DTE (1 year), 1st Semester

Date: 07 March 2019, Thursday (Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4151

Course Title: Technical & Vocational Education Ethics & Society **Full Marks:** 75

Winter Semester (2018-2019)

Time: 1.5 Hours

There are 4 (Four) questions. Answer any 3 (Three).
Figures in the right margin indicate marks of the questions.

- | | | |
|----|---|----|
| 1. | a) Define moral and ethics. | 5 |
| | b) What is organizational ethics? Give examples. | 5 |
| | c) Discuss the three functions of conscience. Give example for each of the three functions. | 15 |
| 2. | a) Discuss the utilitarian approach with examples. | 10 |
| | b) 'Moral goodness of an act is based on religious authority' – what ethical theory does it refer to?
Discuss how this moral theory benefits the society. | 15 |
| 3. | a) Classify the field of ethics. What are the key areas discussed under these filed of ethics? | 10 |
| | b) What are the two moral traditions of hedonism? Distinguish between them. Which one is good for the society and why? | 15 |
| 4. | a) Differentiate between the three ethical decision making frameworks. | 15 |
| | b) "In early nineteenth-century America, many members of the anti-slavery movement argued that slavery was wrong, even though slaveholders and southern society in general, economically benefited from it."- Evaluate this statement in light of deontological ethical theory. | 10 |

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: HUM 4317, HUM 4151

Course Title: Social Studies and Accounting

Winter Semester (2018-2019)

Time : 1.50 hours.

Full Marks : 75

There are two parts; Part 'A' and Part 'B'. Use separate answer scripts for each part.

**There are 3 (three) questions in each part. Answer any 2 (two) from each part.
Figures on the right margin indicate marks of the question**

Part A: Social Studies

- | | | |
|-------|---|-------|
| 1. a) | What do you mean by the Family? State the different types, characteristics and the functions of a family. | 12.00 |
| b) | Discuss the concept of marriage. Explain the importance of marriage. | 6.75 |
| 2. a) | Define the term Society. Analyze the goal, objectives and functions of a Society. | 12.00 |
| b) | Clarify the differences between community and association. Support your answer with example. | 6.75 |
| 3. a) | Discuss about the Islamic polity as practiced in the Madinan society. | 12.00 |
| b) | Brief the comprehensive features/conception of Man in Islam | 6.75 |

Part B: Accounting

1. Nayeem, ACA, started his own accounting firm on 1 January, 2019. The following transactions took place during the month of January, 2019. 18.75
- January 1 Nayeem invested Taka 70000 cash, Taka 100,000 equipment in his business
January 2 paid Taka 9000 office rent for the business
January 3 purchased Taka 6000 supplies for cash
January 4 performed services worth Taka 100,000, received Taka 50000 cash and the rest on account
January 5 incurred Taka 7000 advertising cost in Daily Star newspaper on account
January 10 hired an office manager on agreement of Taka 25000 salary per month
January 15 withdrew Taka 10,000 cash
January 30 paid employees' salaries of Taka 25000
January 31 received the amount due on January 4
- Requirements: Prepare a tabular analysis of the transactions using the following column headings. Use () sign where necessary.

Date	Assets				Liabilities	Owner's equity			
	Cash	Equipment	Supplies	Accounts Receivable	Accounts Payable	Capital	Withdrawal	Revenue	Expenses

2. a) Classify the followings into manufacturing, merchandising and service business. 5
- i. Facebook Incorporation
 - ii. Toyota Motor Corporation
 - iii. Samsung Corporation
 - iv. IUT Book store
 - v. AB Bank Limited
 - vi. Google Incorporation
 - vii. Unilever Bangladesh Limited
 - viii. GSK Pharmaceuticals Limited
 - ix. Biman Bangladesh Airlines Limited
 - x. Airtel Limited
- b) Fit each of the following items with different concepts/ assumption of accounting and briefly explain each of them. 8.75
1. The activities of an entity are kept separate from the activities of its owner. The business has its own identity.
 2. The economic life of a business can be divided into artificial time periods say for one year or half yearly.
 3. The skills and honesty of management, the efficiency of employees shall not be recorded.
 4. The business will continue into operation for foreseeable period.
- c) Classify the following items into internal and external users of accounting information. 5
- i. Shareholders
 - ii. Tax authority
 - iii. Finance manager
 - iv. Customers
 - v. Bank and financial institutions
3. a) Define accounting. What are the differences between accounting and book keeping? 6.75
- b) Black Keys Company began the year with owner's equity of \$280,000. During the year, the company recorded revenues of \$375,000, expenses of \$285,000, and had owner drawings of \$30,000. 6
 What was Black Keys' owner's equity at the end of the year? If Black Keys's assets were \$500,000. What were its liabilities? Show computation.
- c) XYZ Pharmaceuticals Limited, a leading pharmaceutical business in the country offers essential drugs, vaccines, oral healthcare and nutritional products to its customers. The business raised its capital through share issue to the public. Thus, the number of owners is huge. The liability of the owners is limited up to the amount of shareholding. The business is operated by an efficient board of directors experienced in different fields. Which ownership form of business is XYZ Pharmaceuticals Limited? Why? Write down the merits and demerits of this ownership form of business. 6

Program: M.Sc.TE, 1st Semester

Date: 05 March 2019, Tuesday (Afternoon)

DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)
ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

Mid-Semester Examination

Course No: TVE 6113

Course Title: Curriculum Development in TVE

Winter Semester (2018-2019)

Time: 1.5 Hours

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the question.

- | | | |
|---|--|----|
| 1 | (a) Define the term "Curriculum". How does it differ from Syllabus? | 15 |
| | (b) In the process of systematic curriculum design Curriculum and Instructional materials are important input documents. Draw the relationship among various major elements of an educational system/vocational program system and explain how one can differentiate between curriculum and instructional systems. | 10 |
| 2 | a) What are the primary data sources you should consider when making curricular decision? | 5 |
| | b) Describe any two of the following curriculum design approaches: | 20 |
| | i. Individual Needs Approach, | |
| | ii. Subject Specialization Approach, | |
| | iii. Social Demand/ Job Analysis Approach. | |
| 3 | a) State the basic concepts on which Vogler's Curriculum Pedagogy Assessment (CPA) Model of curriculum design is built | 10 |
| | b) Draw the diagram of the CPA Model showing the relationship among various elements. | 15 |
| 4 | a) Identification of possible source of employment within a community is critical to the development of TVET curricula. Discuss briefly the different approaches to identify the sources of employment, including current sources and emerging areas of employment. | 15 |
| | b) Describe how you can project labour supply and demand. | 10 |

Programme: M.Sc.T.E. (1st Sem) - 2 Yr.

Date: 08 March 2019 Friday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 6125

Course Title: Advanced Methods and Techniques of Teaching

Winter Semester (2018-2019)

Time : 90 min

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- | | | |
|---|---|----|
| 1 | (a) Define <i>Pedagogy</i> and <i>Andragogy</i> with specific conditions and examples. | 12 |
| | (b) As a Pedagogue, list the qualities of a good teacher. | 13 |
| 2 | (a) Explain the importance of “engagement” and “sharing” approach of teaching and learning in context of TVET. | 12 |
| | (b) Discuss – “ <i>The mediocre teacher tells, the good teacher explains, the superior teacher demonstrates, however, the great teacher inspires.</i> ” | 13 |
| 3 | (a) Discuss the following principles of learning and motivation:
(i) Prerequisites, (ii) Modeling, (iii) Novelty, and (iv) Fading | 12 |
| | (b) Link the process of teaching and learning with industrial process. Discuss benefits of linkage between School and Industries. | 13 |
| 4 | (a) What is mastery learning? Discuss its importance in advanced methods and techniques of teaching. | 12 |
| | (b) Narrate requirements for ensuring mastery learning. | 13 |

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 6153

Course Title: Educational Research

Winter Semester (2018-2019)

Time : 1.5 Hours

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Distinguish between inductive and deductive reasoning by using proper examples. Show how they are linked with qualitative and quantitative research. 13
12
- b) Discuss the main *characteristics of research* in your chosen area (TVE/ Engineering Education) that are supported by the prior definitions from the existing literature. 12
2. a) Write four reasons that you need to consider while you will be selecting your research problem? Why do you think these four aspects (reasons) are important to consider? 12
- b) Write a research problem (title) and justify the problem is researchable 05
- c) What is *basic research*? Discuss the main features of basic research in technical education. 08
3. a) Differentiate between qualitative and quantitative research with highlighting five main separating aspects. 10
- b) What is **extraneous variable** in research? Provide an example to clarify your answer. 08
- a) Read the abstract and answer the following question: 07
 This article presents the results of a study, undertaken from a phenomenographic perspective that examines teachers' conceptions of Information and Communication Technology (ICT) in the workplace. Twenty-three teachers from three Technical and Further Education (TAFE) institutions in Australia participated in semi-structured in-depth interviews where they discussed their experiences regarding how ICT is being used in the professional workplaces for which they prepare their students. Interviews were analysed using an iterative process. The outcomes revealed that ICT in the workplace is conceived in three qualitatively different ways: using ICT for various regular work-related tasks; helping accomplish a job more effectively; and using ICT as an essential tool in professional activities. Three dimensions of variation—accessing and receiving information, communication, and professional development—were identified and explored to establish relationships among the categories of description. These findings provide useful knowledge for minimising the gap between teaching in vocational institutions and workplace practices. They inform ICT integration in vocational education programs and TAFE teachers' professional development. Source: Khan & Lina (2017)
Which type of research (qualitative/quantitative) do you think it is? Give four reasons, which are stated (discussed) in this abstract.
4. a) Discuss on the following terminology with stating citing one appropriate research problem (write a research problem in each case): 16
 (i) Ontology; & (ii) Epistemology;
- b) Do you think methodology and method in educational research is same? Justify your answer with an appropriate example. 09

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Term Examination
 Course No: TVE 6355
 Course Title: Quantitative Research and Advanced Statistics

Winter Semester (2018-2019)
 Time: 1.5 hours
 Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. Consider Maria, a teacher with 10 years of experience, who teaches English at a midsized metropolitan high school. Lately, a number of incidents in the school district have involved students possessing weapons: *a teacher found a 10th grader hiding a knife in his locker; a 12th-grade student threatened another student, telling him "he wouldn't see the light of day" unless he stopped harassing her; at a nearby high school, a student pointed a handgun at another student outside the school.* These incidents alarm district officials, school administrators, and teachers. The principal forms a committee made up of administrators and teachers to develop guidelines about how the school should respond to these situations. In response to a call for teachers to serve on this committee, Maria volunteers immediately. Maria recognizes the need to closely examine an important issue- *school violence and weapons at school*, although she is new to research. Maria starts to think about research not as a large, formidable task, but as a series of small, manageable steps. Knowing these smaller steps is key to the success of planning and completing her research.
 Considering this research context. answer the following-
 - a) Write down the problem statement of the research. 5
 - b) To deal with this research problem, Maria considers a series of small, manageable steps which is known as 'research process'. Write down the steps involve in this research process. 10
 - c) Draw a block diagram to show the 'research process cycle'. 10

2. a) One way to classify quantitative methods is under the headings of: *experimenting, asking questions and observing*. In a research, you are going to investigate the relationship between coffee drinking and sleep patterns of BScTE students (consider a sample size of 30) in IUT. Briefly describe how you arrange your participants to collect data under these three quantitative research setups- *experimenting, asking questions and observing*. 25

3. a) What is research question? Classify the quantitative research questions. 5
 b) A researcher wants to examine the relationship of critical thinking skills (an independent variable measured on an instrument) to student achievement (a dependent variable measured by grades) in science classes for eighth-grade students in a large metropolitan school district. The researcher moderates the assessment of critical thinking using prior grades as indicators in science classes and controls for parent's educational attainment.
 Considering this problem, write down a research question under each of the classification of the research question asked in the question 3(a). 10
 c) Define variables? Identify the variables from the three research questions you have written. What measurement do you use to categorize these variables? 10

Program: MScTE (1 year), 3rd Semester

Date : 04 March 2019, Monday (Afternoon)

- 4 (a) What is research hypothesis? What are the differences between research question and hypothesis? 10
- (b) An investigator might examine three types of reinforcement for children with autism: (i) verbal cues, 10
(ii) a reward, and (iii) no reinforcement. The investigator collects behavioral measures assessing social interaction of the children with their siblings. Based on this experimental research, write down one null, directional and nondirectional hypothesis.
- (c) Identify the variables from the three hypotheses (null, directional, nondirectional) you have written. 5
What measurement do you use to categorize these variables?

Programme: M.Sc. TE (2 year), 3rd Semester

Date: 11 March, 2019, Monday (Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 6371

Course Title: Systems Approach in Technical Education

Winter Semester (2018-2019)

Time : 1Hr 30 Minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. (a) Define system approach. Explain briefly different parameters of system approach in relation to Technical Education. 10
(b) Discuss briefly the different steps that involved in systems approach with a suitable example. 10
(c) State the purposes and uses of systems approach in technical education. 5
2. (a) "Systems approach as an inter-disciplinary approach". – Explain 10
(b) Discuss briefly the integration of systems concepts within a systems approach with a necessary diagram. 10
(c) What are the roles of systems approach to business and industry management? 5
3. (a) Explain briefly the concept and meaning of organization boundaries. 5
(b) Discuss the characteristics and functions of an organization boundary. 10
(c) Distinguish between boundary-spanning positions and boundary role persons. 10
4. (a) What is systems analysis? How systems analysis influences to solve educational problems? 10
(b) Explain briefly the concept and meaning of systems engineering and human engineering. 5
(c) Discuss the similarities and dissimilarities of system engineering and human engineering. 10